

Figure 1a: C. Adachi, et. al.

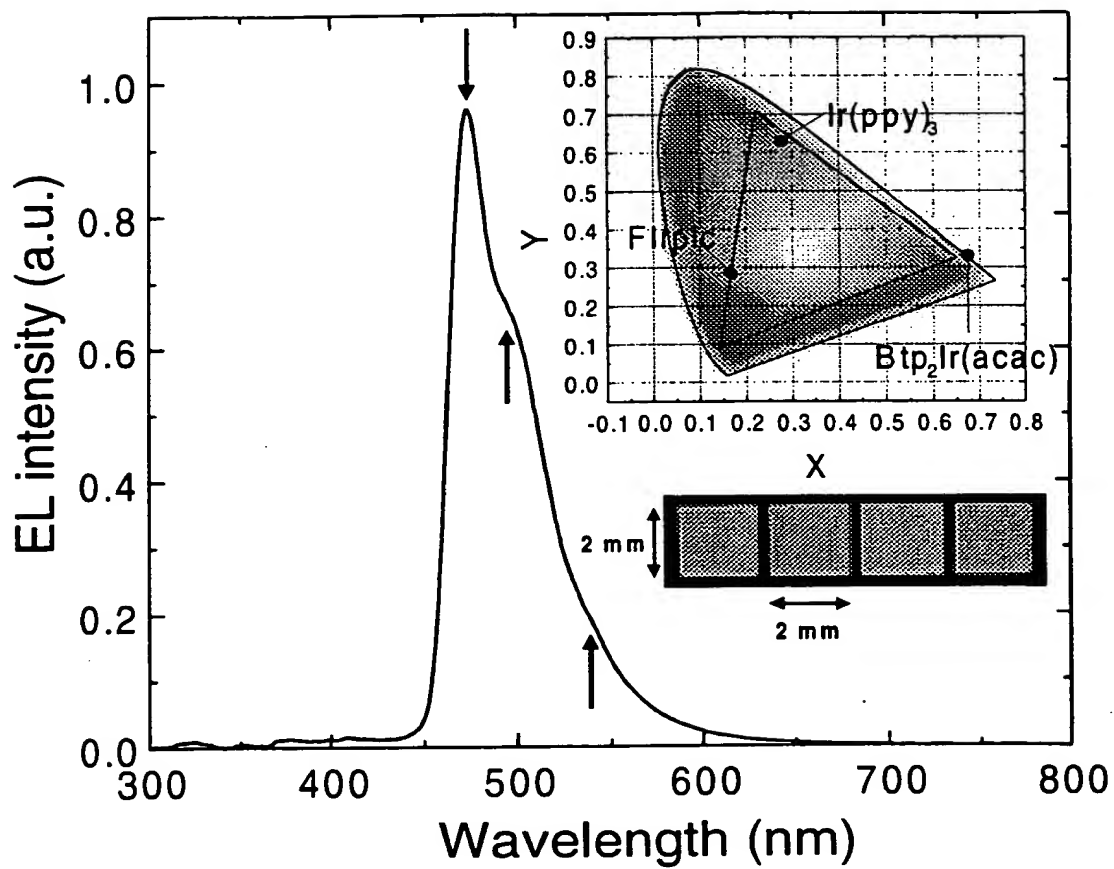


Figure 1b: C. Adachi, et. al.

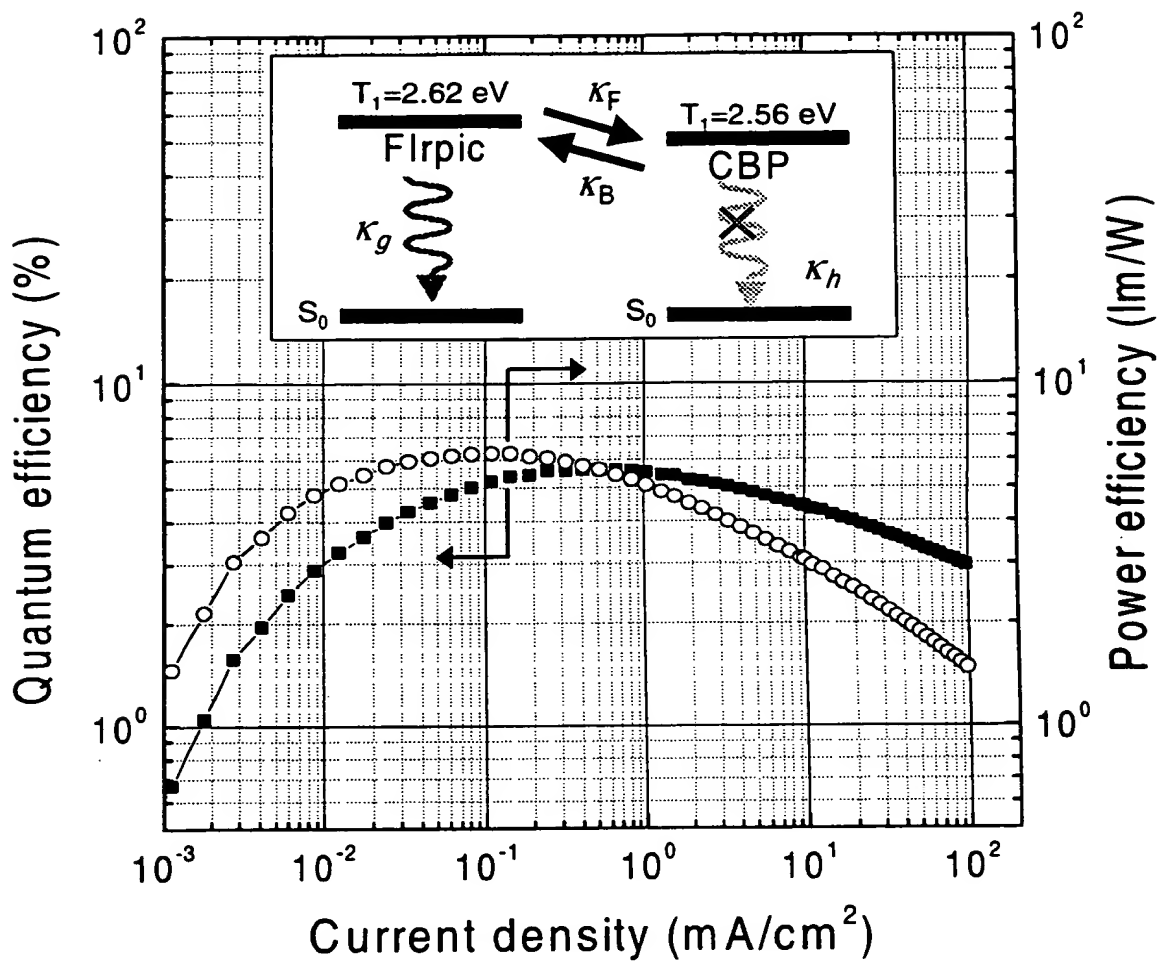


Figure 2: C. Adachi, et.al.

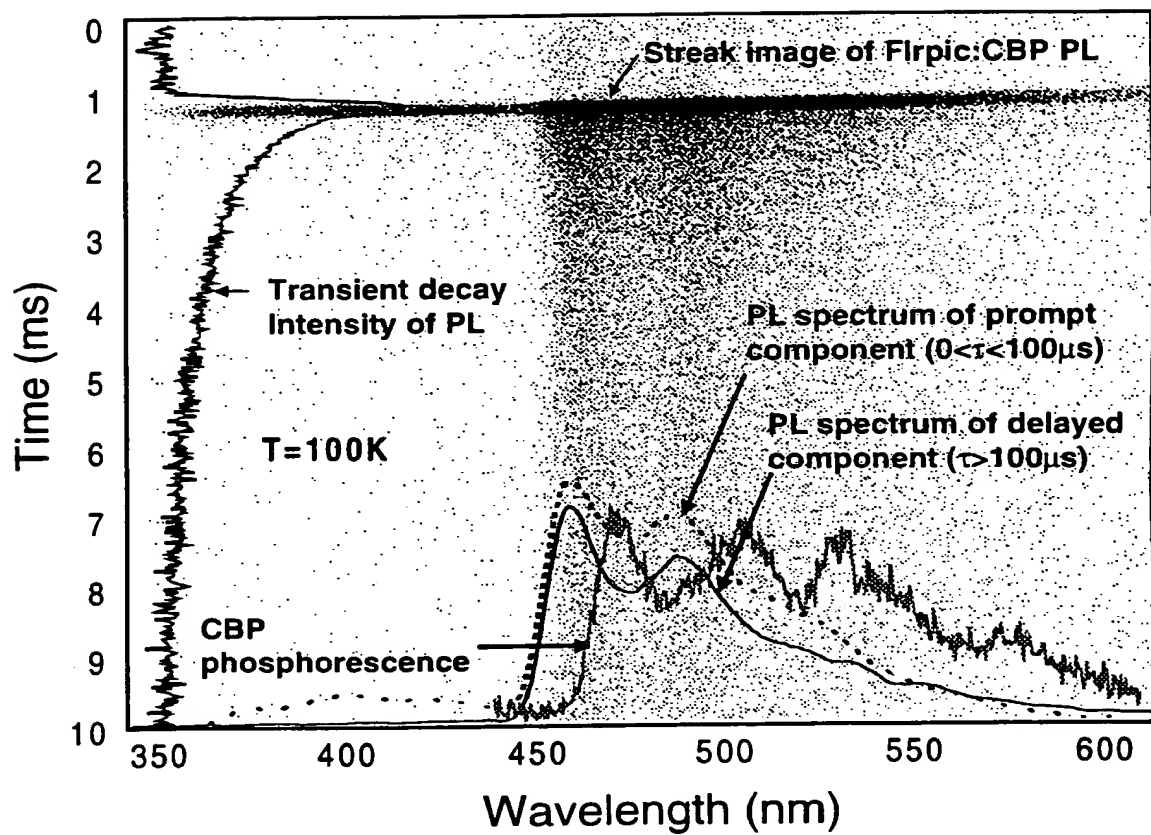


Figure 3: C. Adachi, et. al.

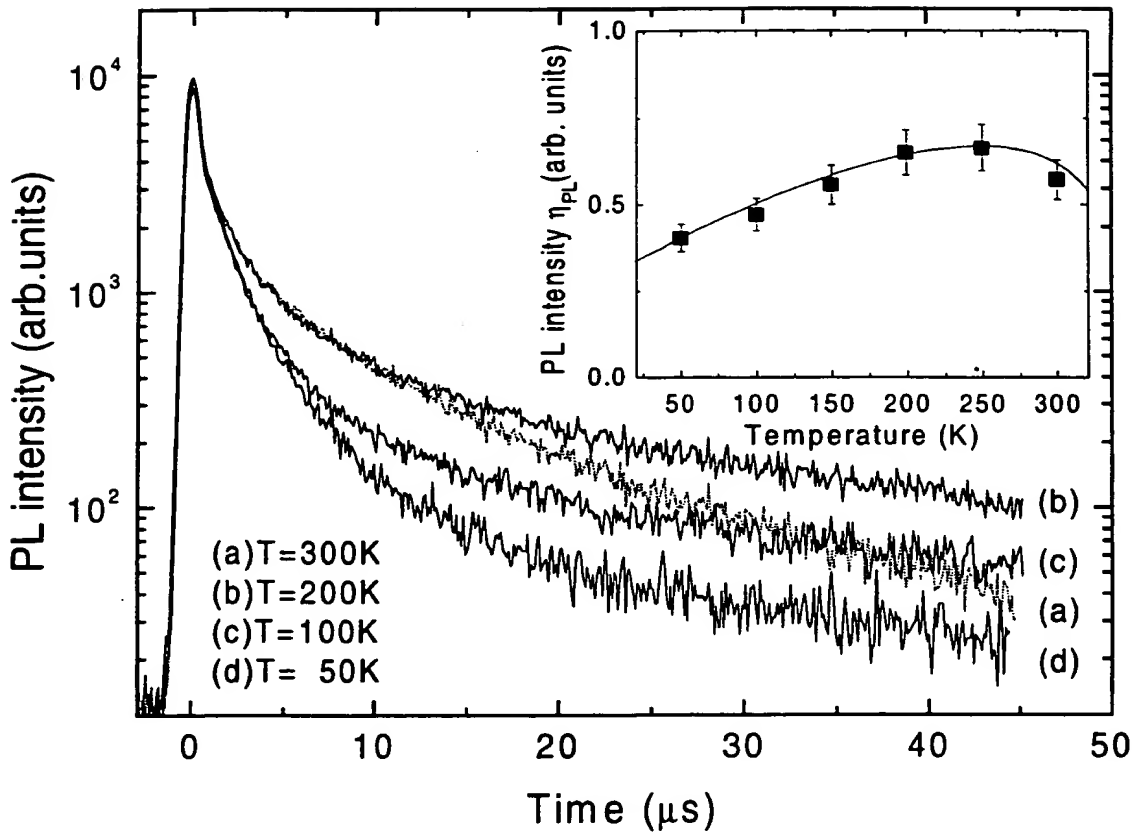
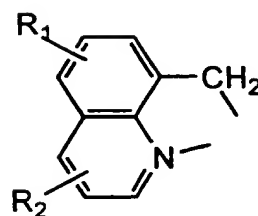
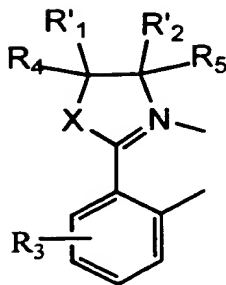
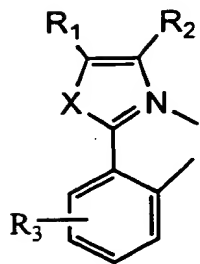
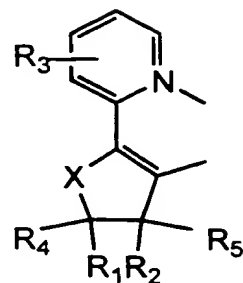
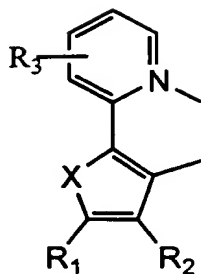
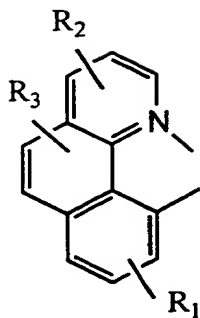
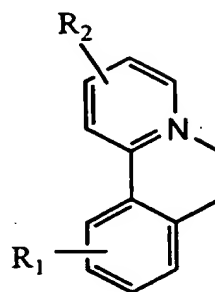
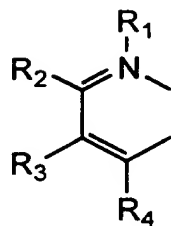


Figure 4: C. Adachi, et.al.

Figure 5a

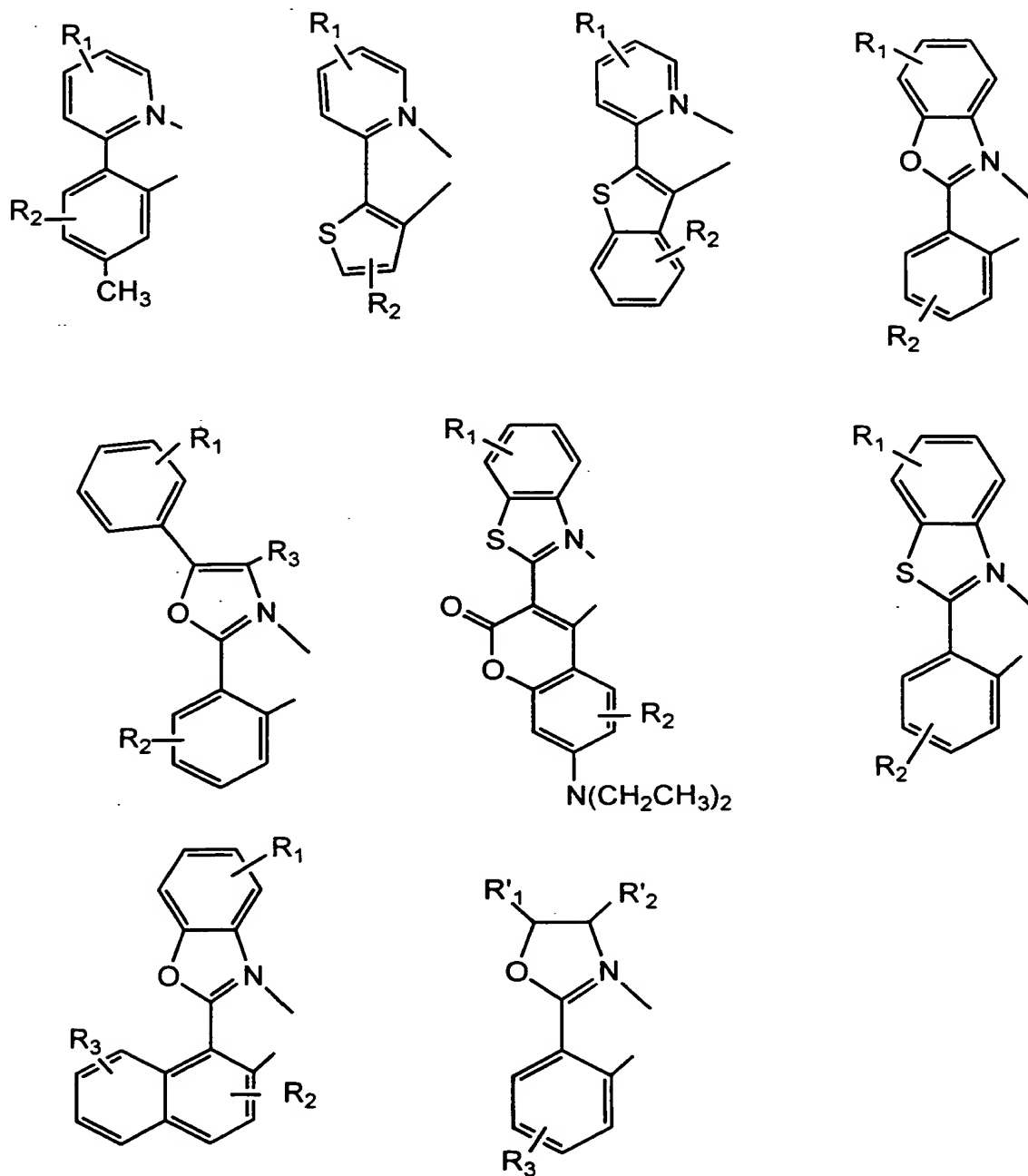
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-I



X = S, O, NR; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are, independently, hydrogen, halogen, alkyl, aryl or arylene; and R'<sub>1</sub> and R'<sub>2</sub> may, in combination, be aryl.

Figure 5b

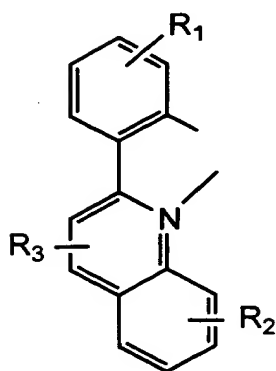
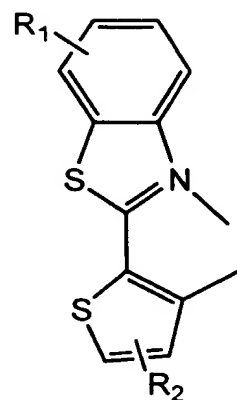
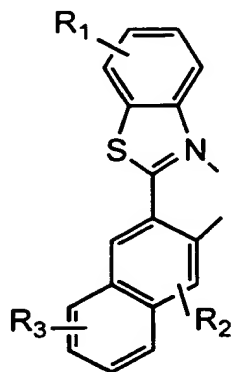
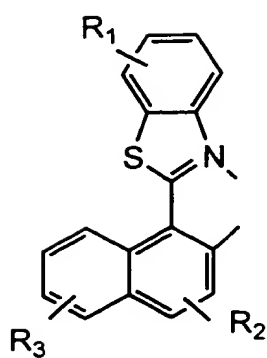
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-II



$X = S, O, NR$ ; and  $R_1, R_2, R_3, R_4$  and  $R_5$  are, independently, hydrogen, halogen, alkyl, aryl or arylene; and  $R'_1$  and  $R'_2$  may, in combination, be aryl.

Figure 5c

Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-III

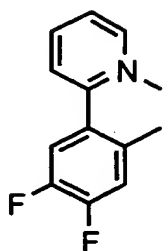
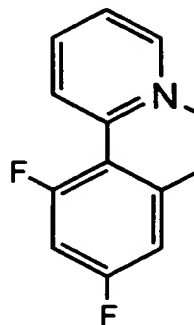
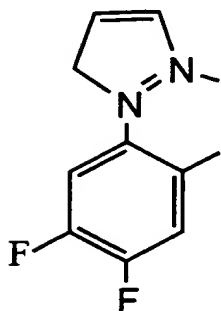


$X = S, O, NR$ ; and  $R_1, R_2, R_3, R_4$  and  $R_5$  are, independently, hydrogen, halogen, alkyl, aryl or arylene.



Figure 5d

Specific Mono-Anionic, Bidentate, Carbon-Coordination Ligands-I



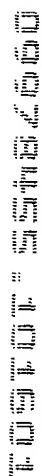
UDC Proprietary and Confidential

1. The first part of the document is a list of references. The references are listed in a vertical column on the left side of the page. The references are:

- 1. The first part of the document is a list of references. The references are listed in a vertical column on the left side of the page. The references are:

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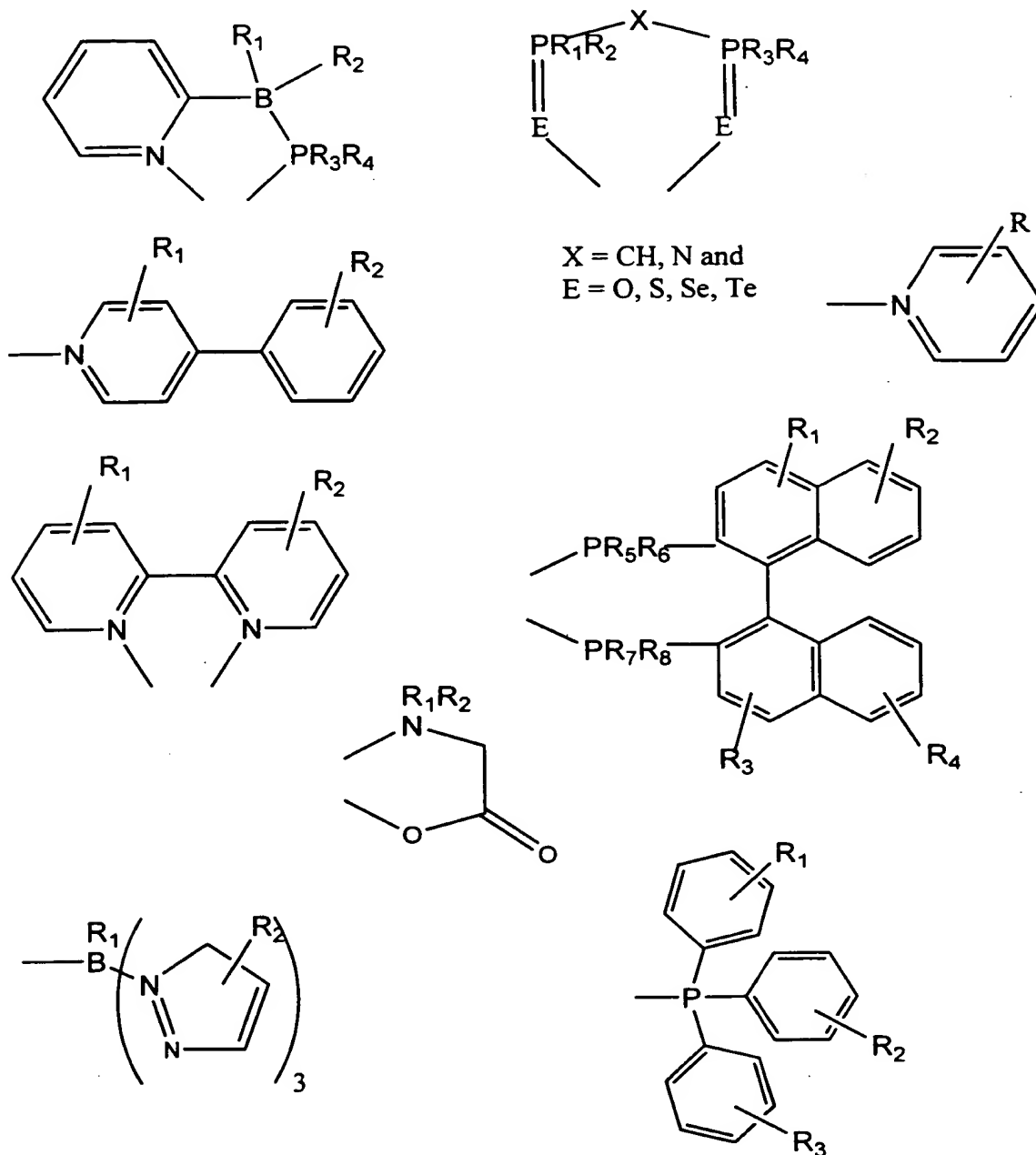


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- 1. The first part of the document is a list of references. The references are listed in a vertical column on the left side of the page. The references are:

Figure 6b

Generic Non-Mono-Anionic, Bidentate, Carbon-Coordination Ligands-II



$R, R_1, R_2, R_3, R_4, R_5, R_6, R_7$  and  $R_8$  are, independently, hydrogen, halogen, alkyl or aryl.

Figure 6c

Specific Non-Mono-Anionic, Bidentate, Carbon-Coordination Ligands

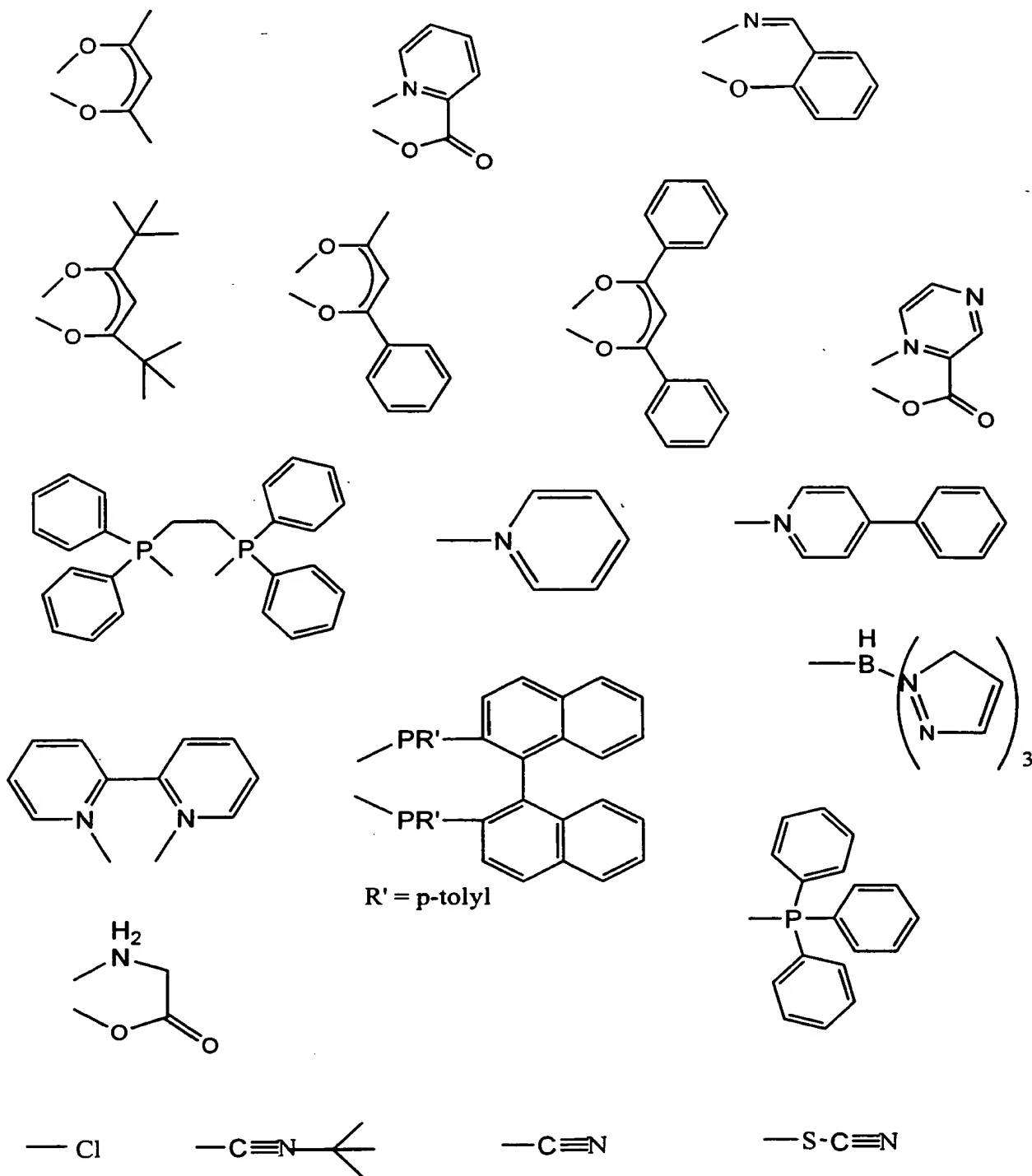


Figure 7a

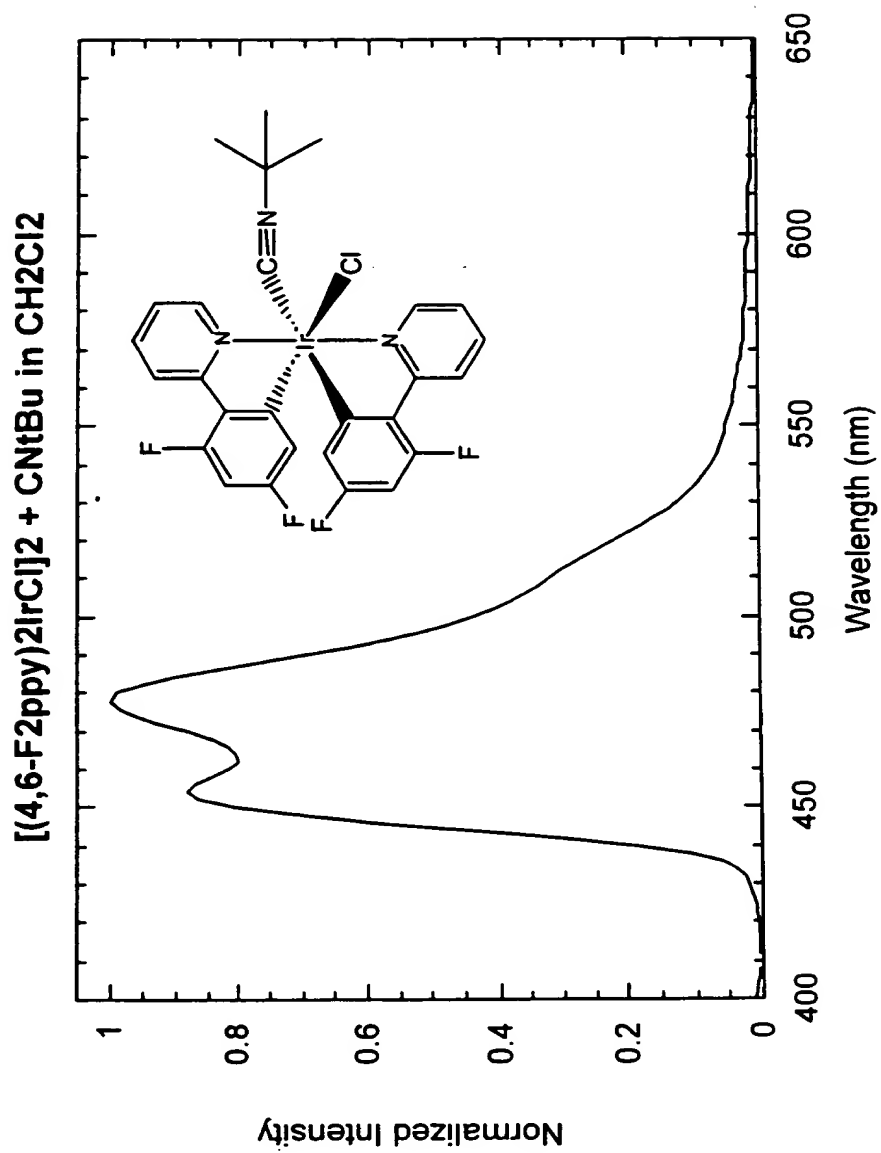


Figure 7b

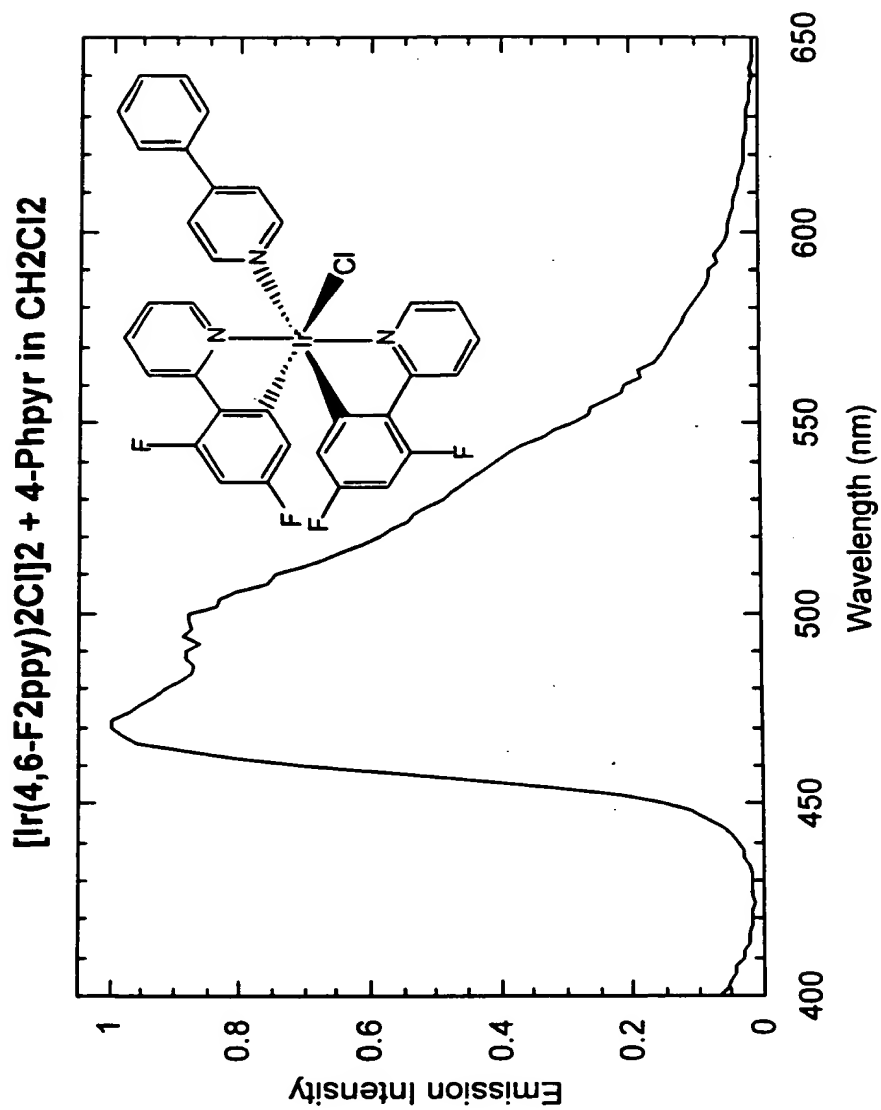


Figure 7c

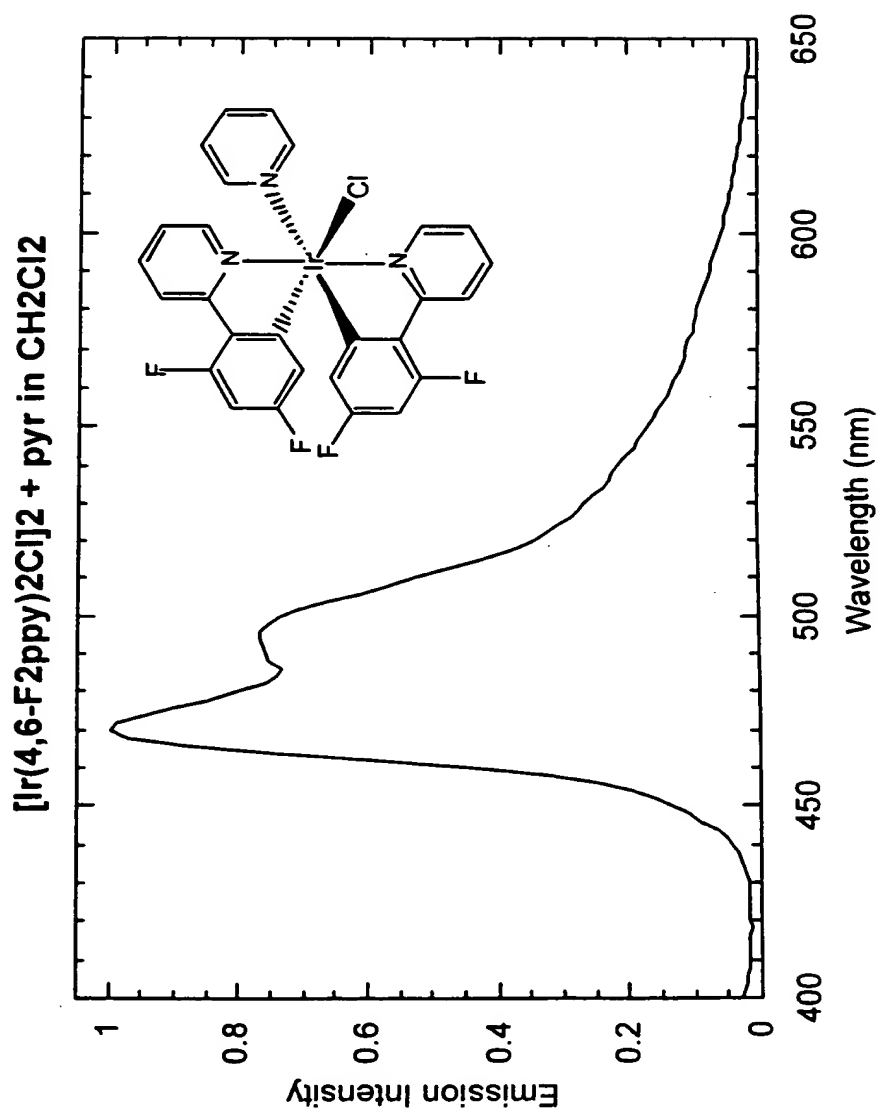


Figure 7d

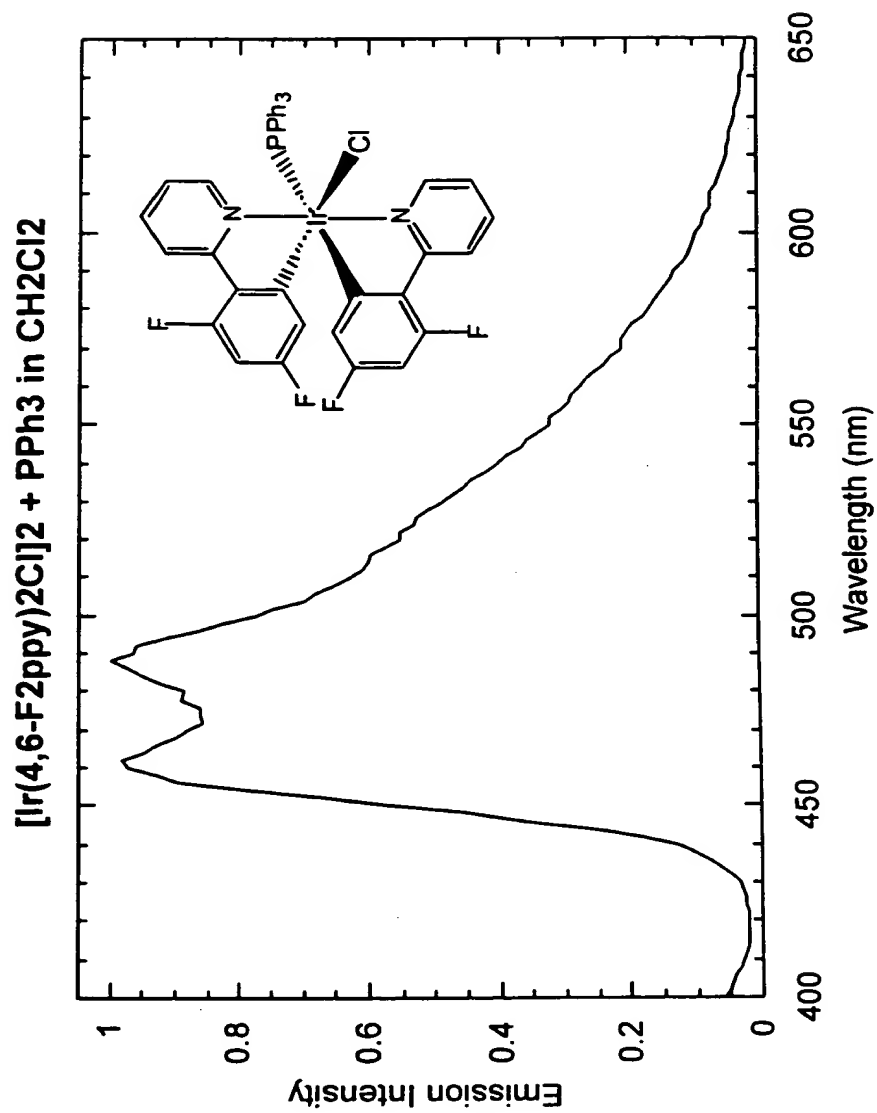




Figure 7e

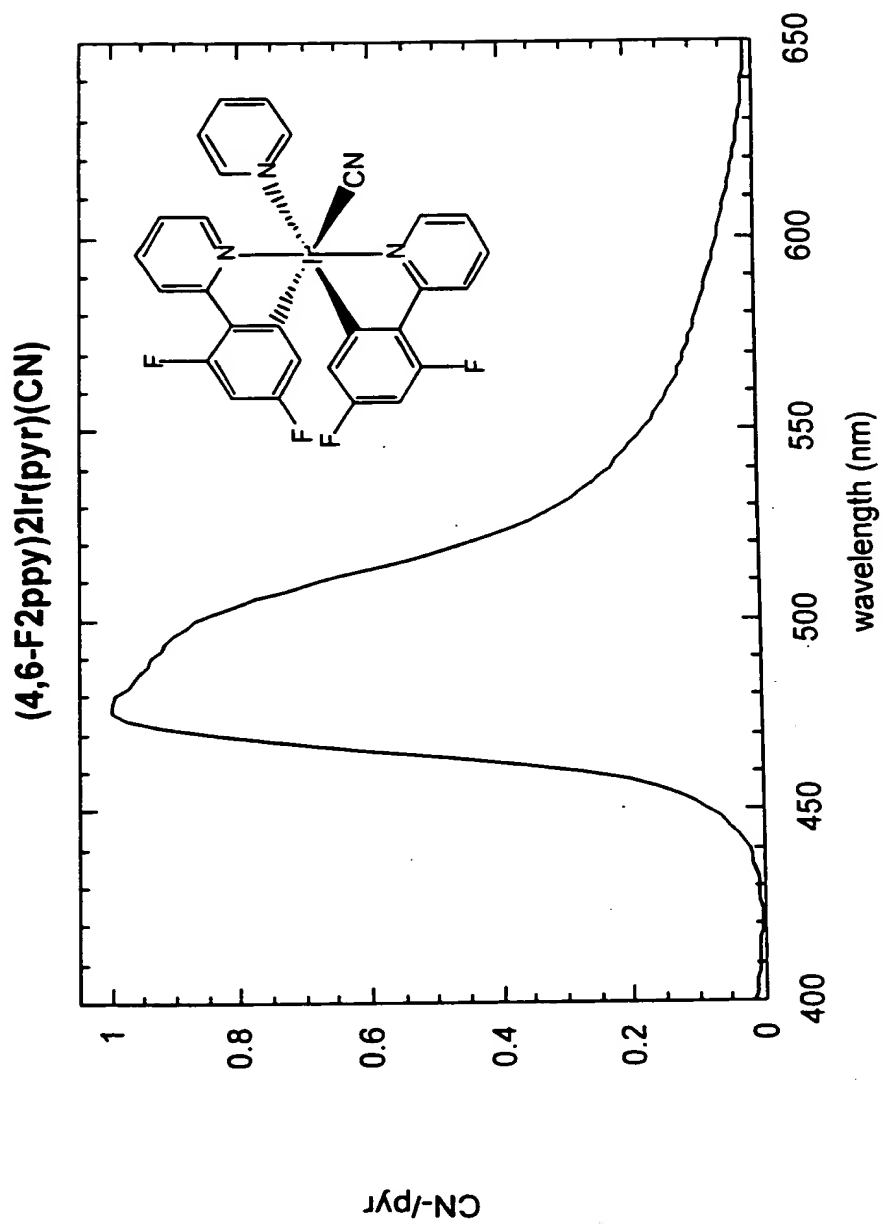


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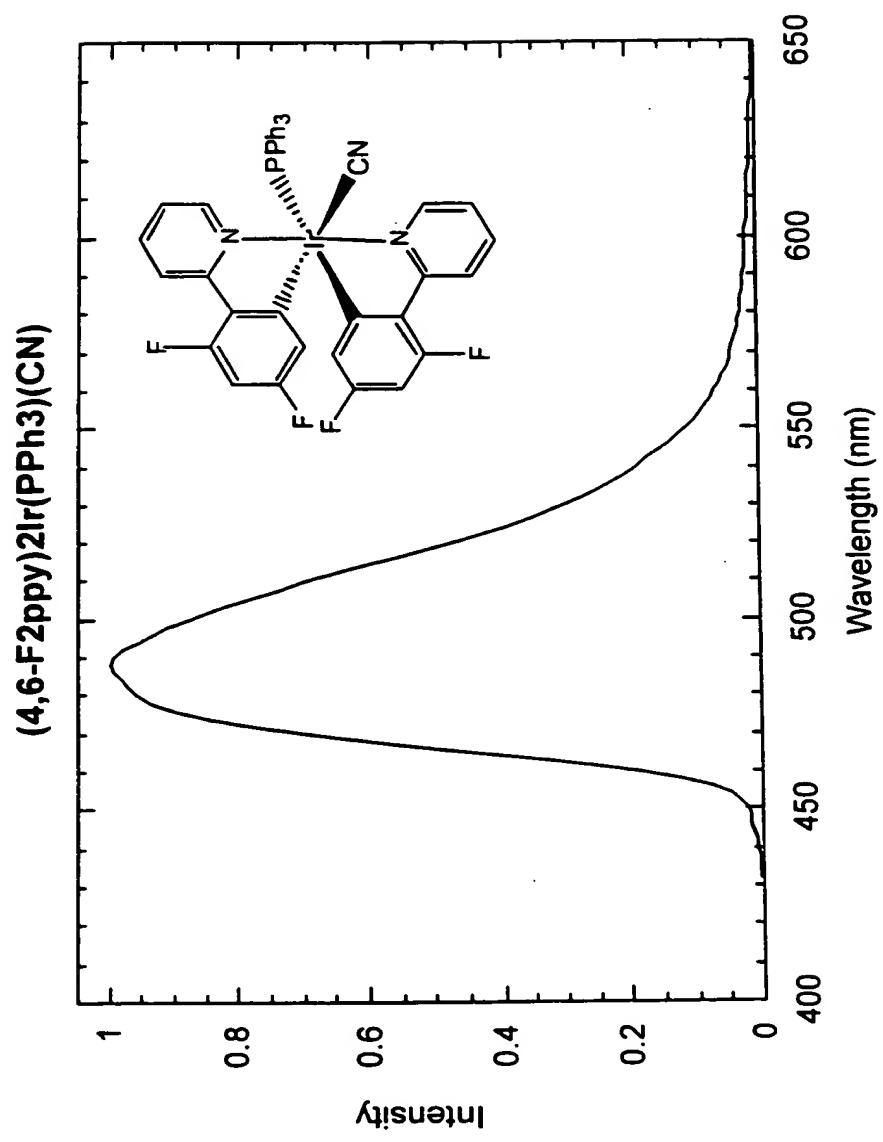


Figure 7g

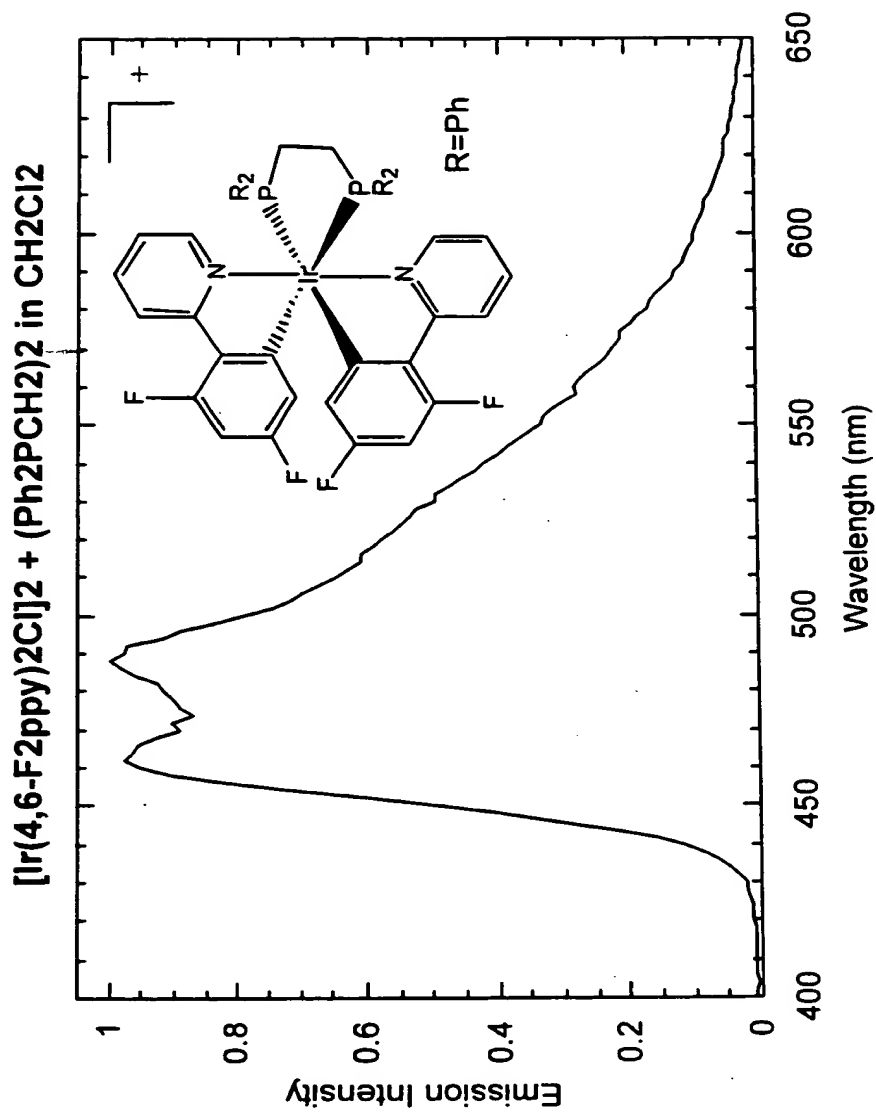


Figure 7h

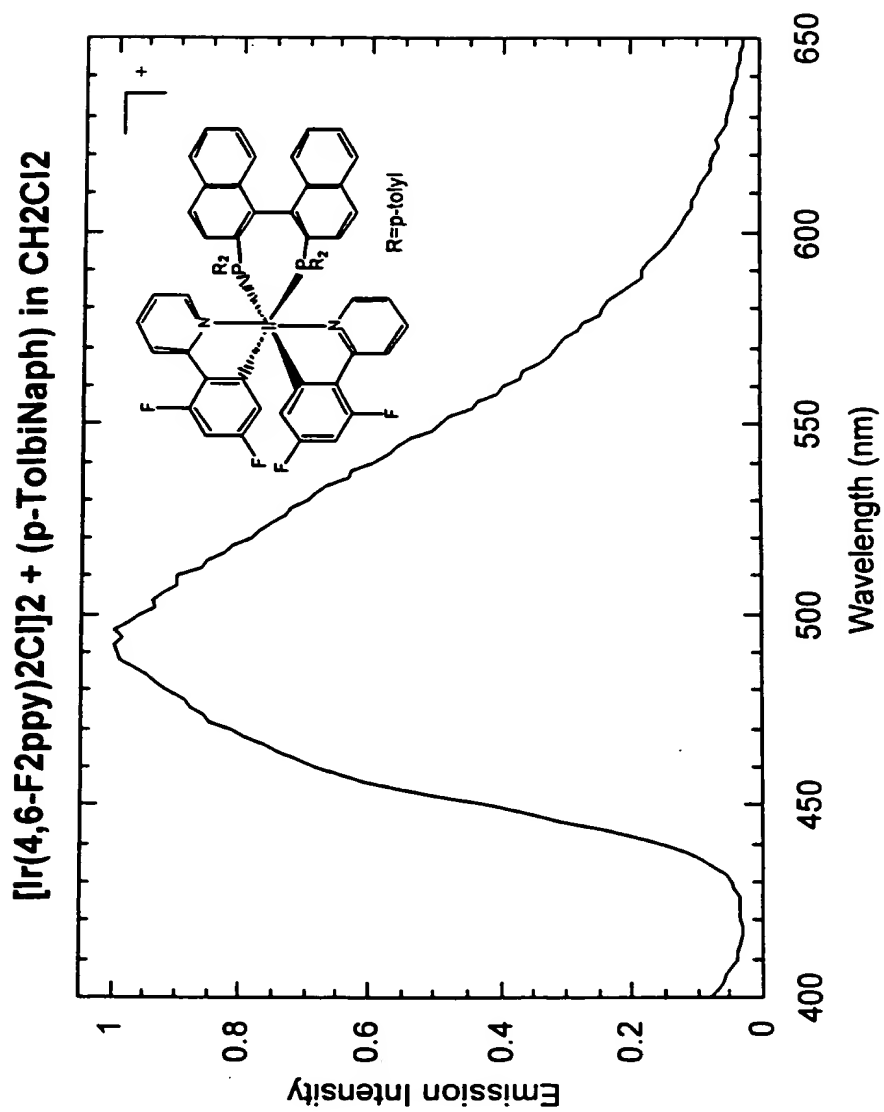


Figure 7i

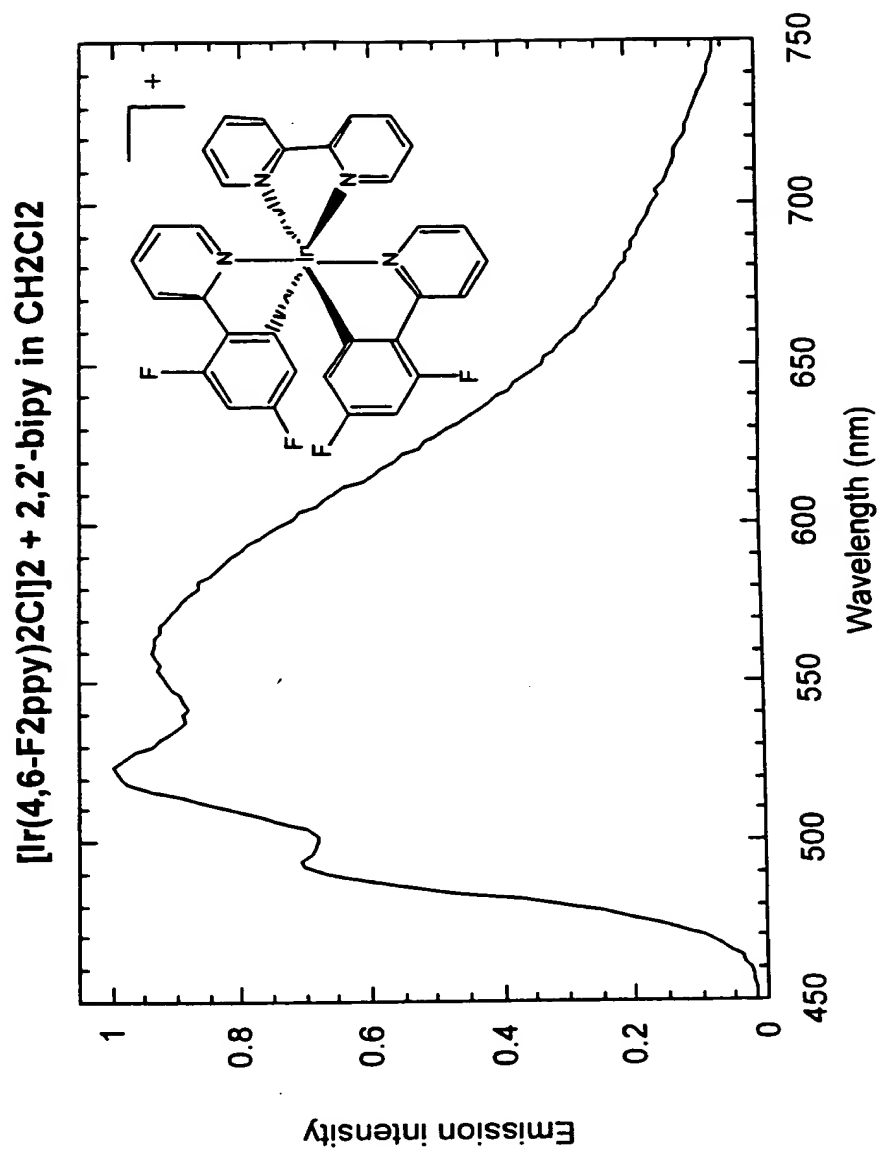


Figure 7j

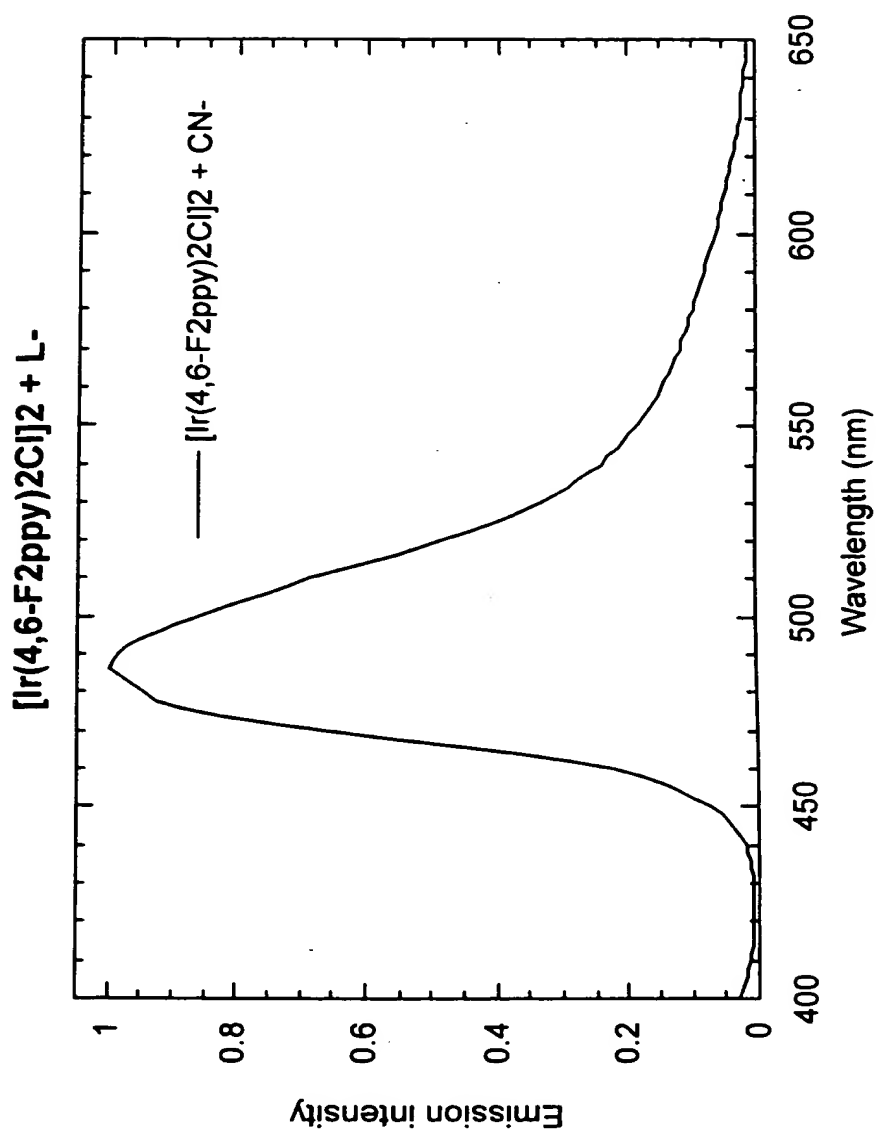


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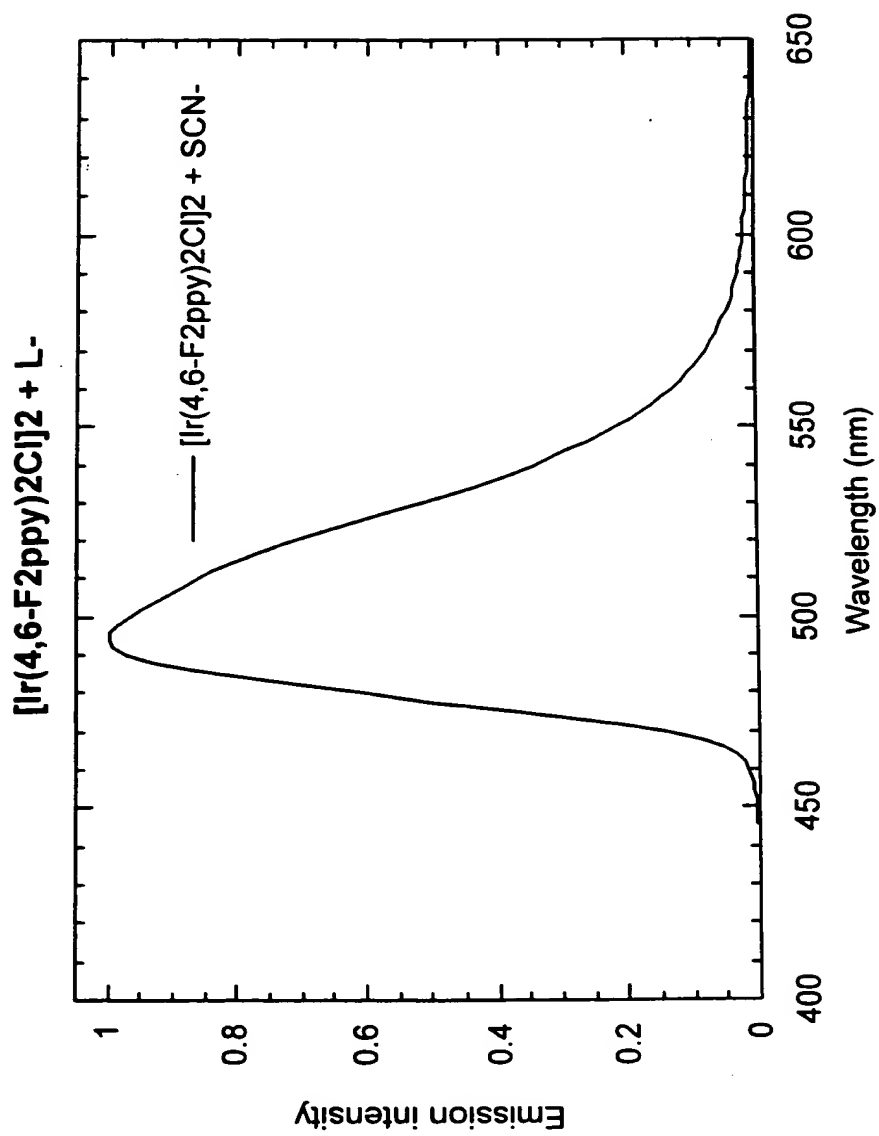


Figure 7d

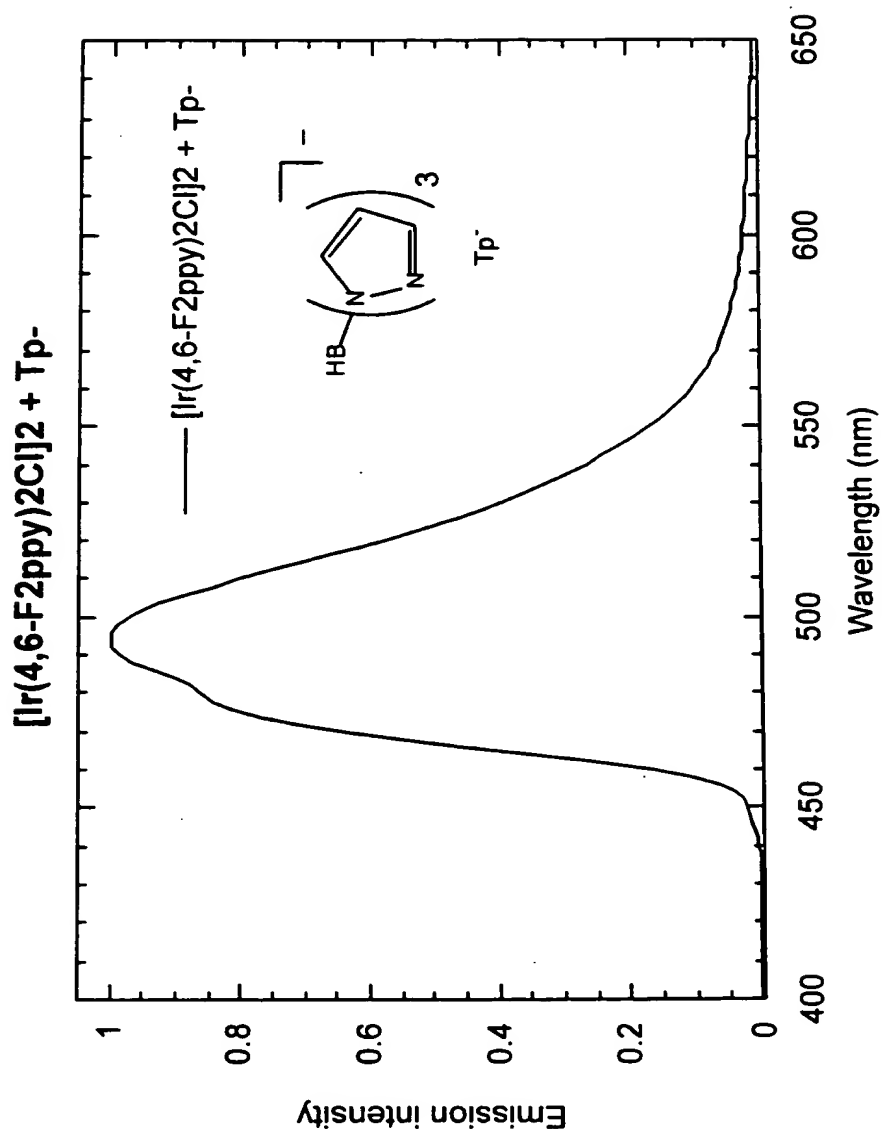




Figure 7m

**Ir(4,6-F<sub>2</sub>ppy)<sub>2</sub>(acac) in CH<sub>2</sub>Cl<sub>2</sub>**

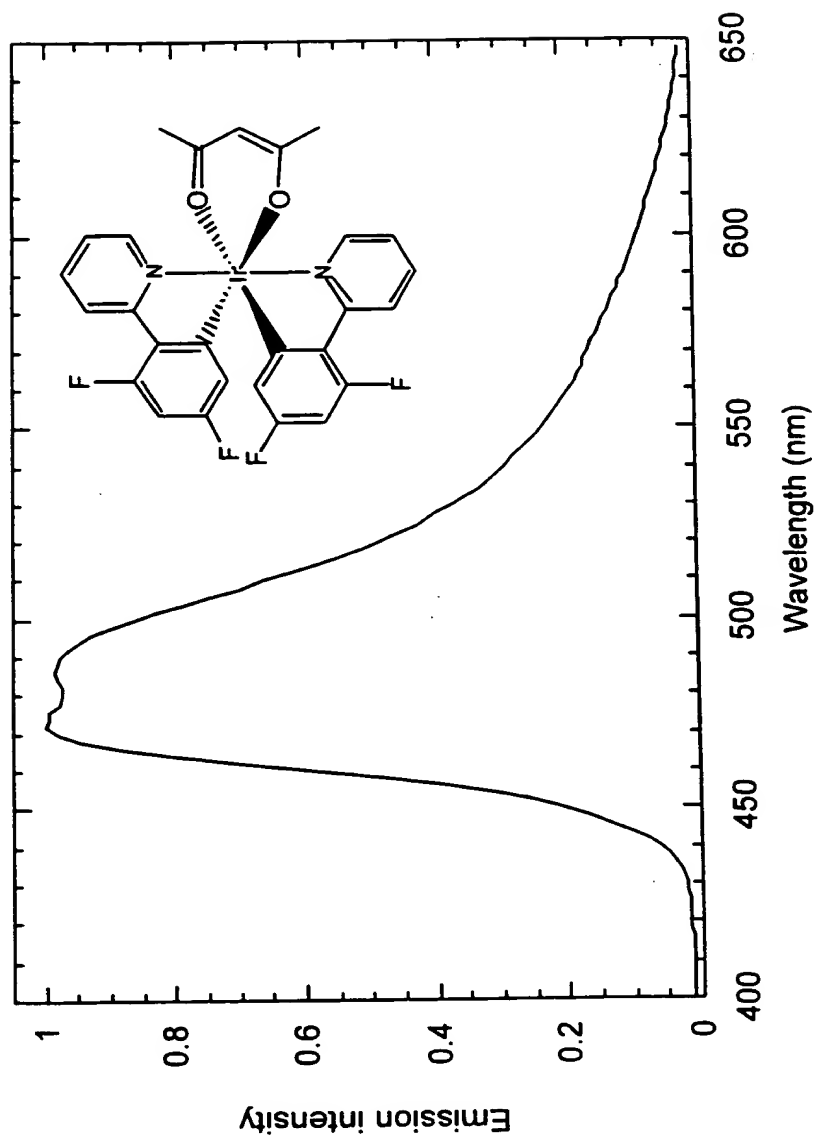


Figure 7n

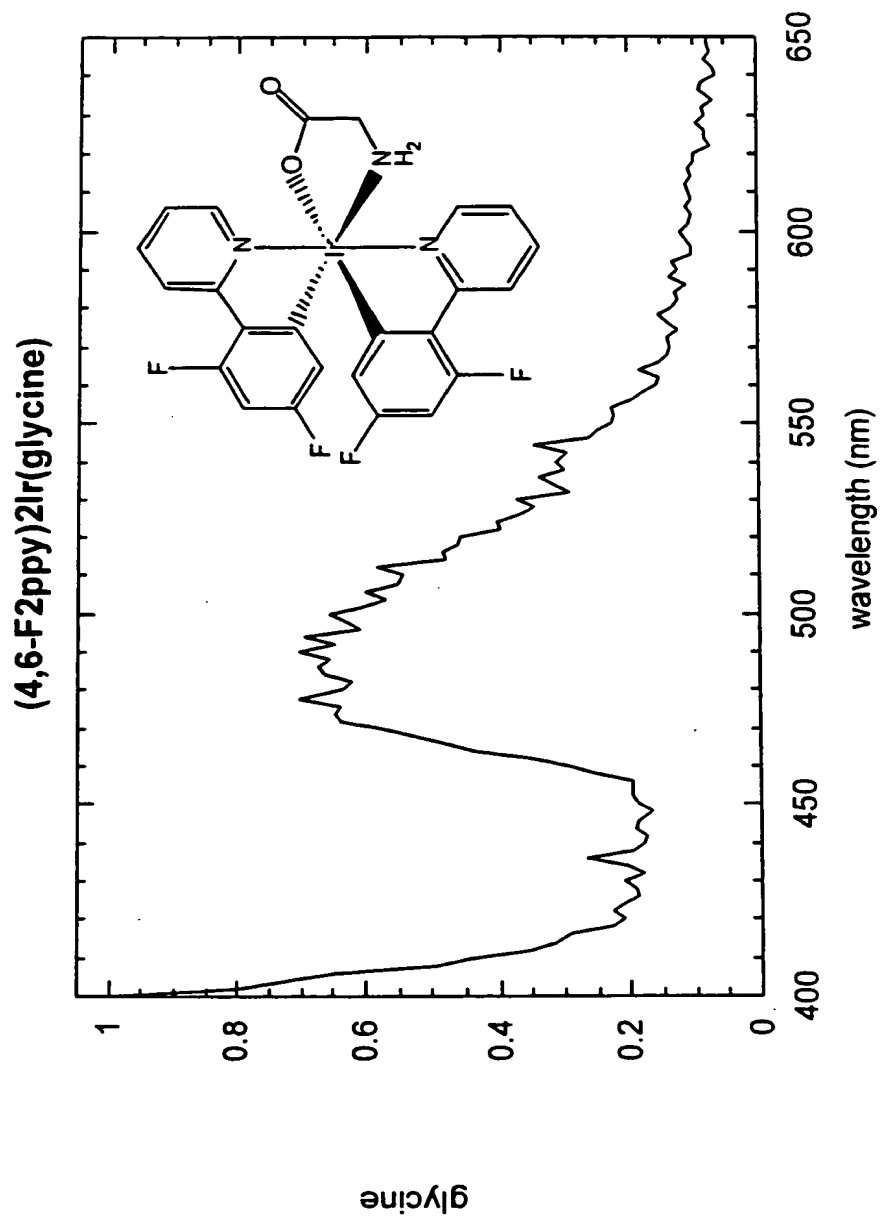


Figure 70

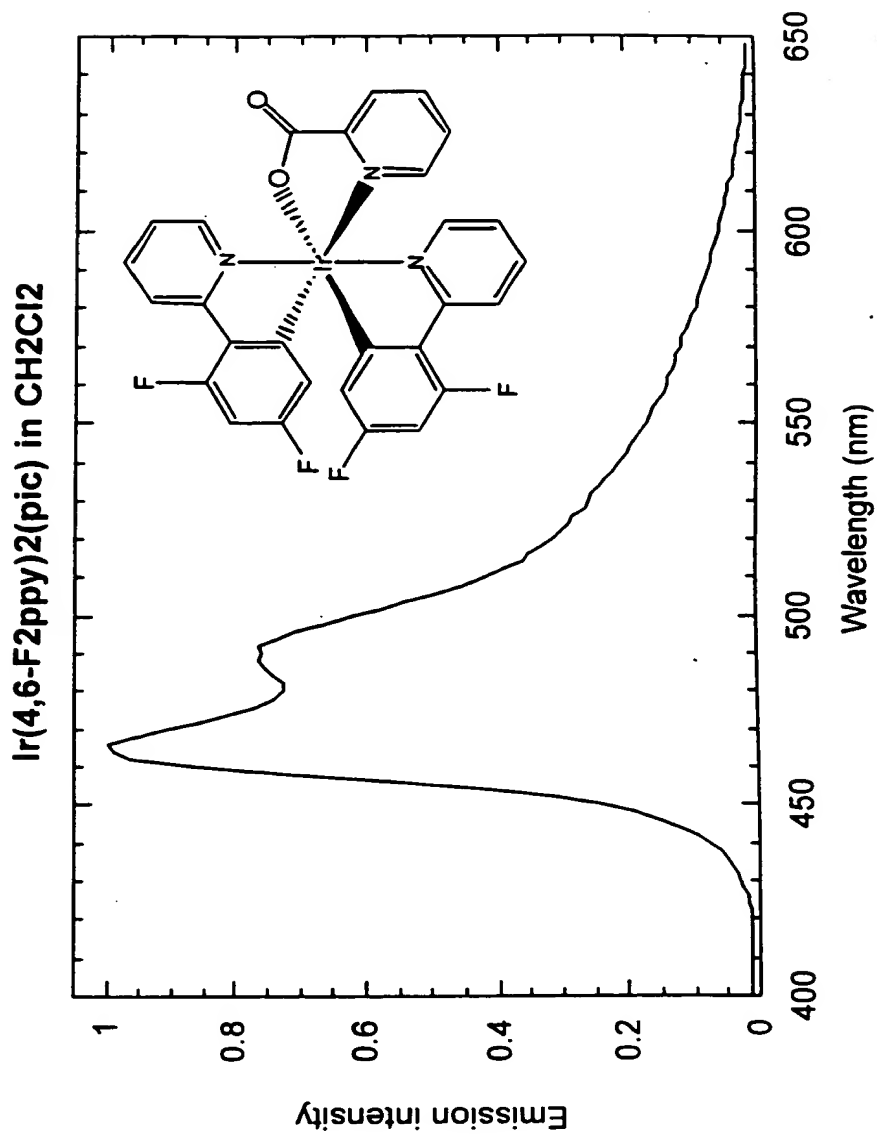


Figure 7p

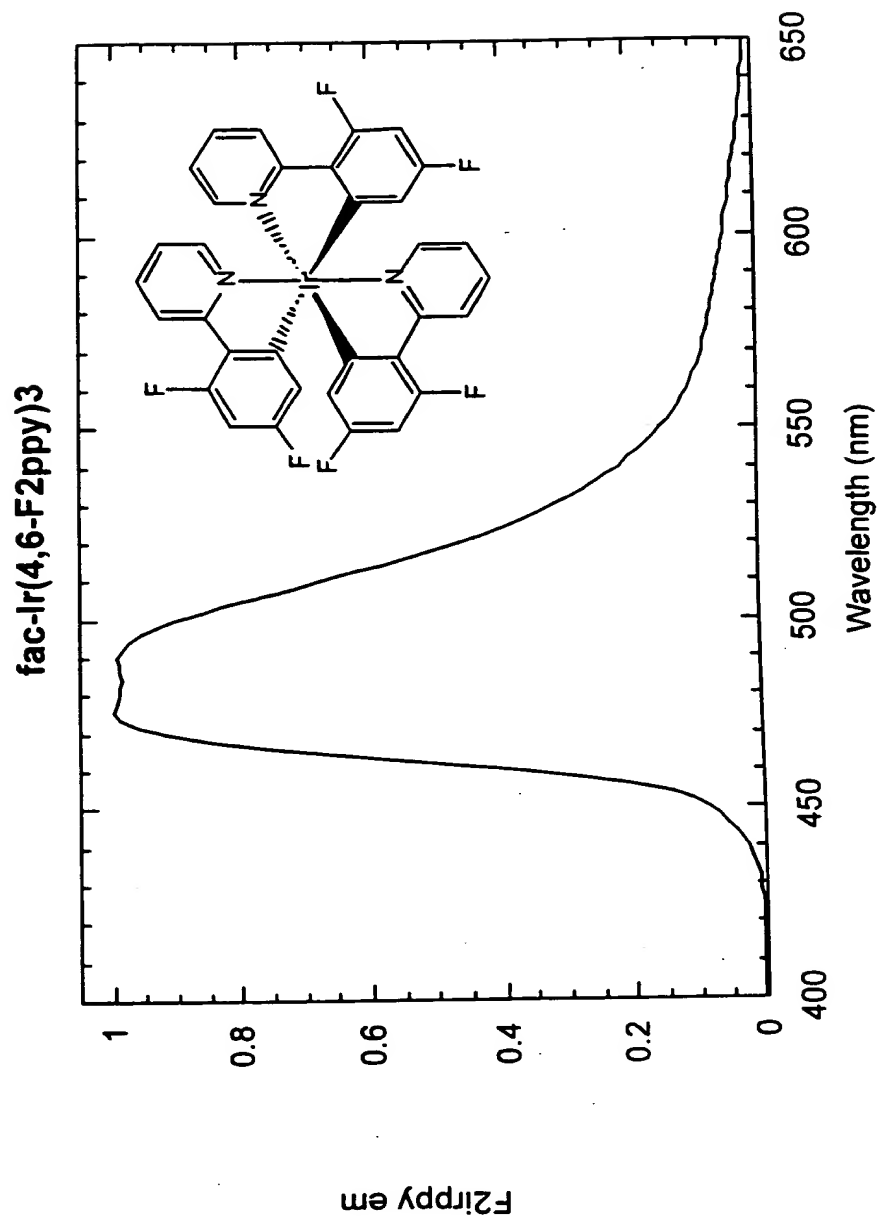


Figure 79

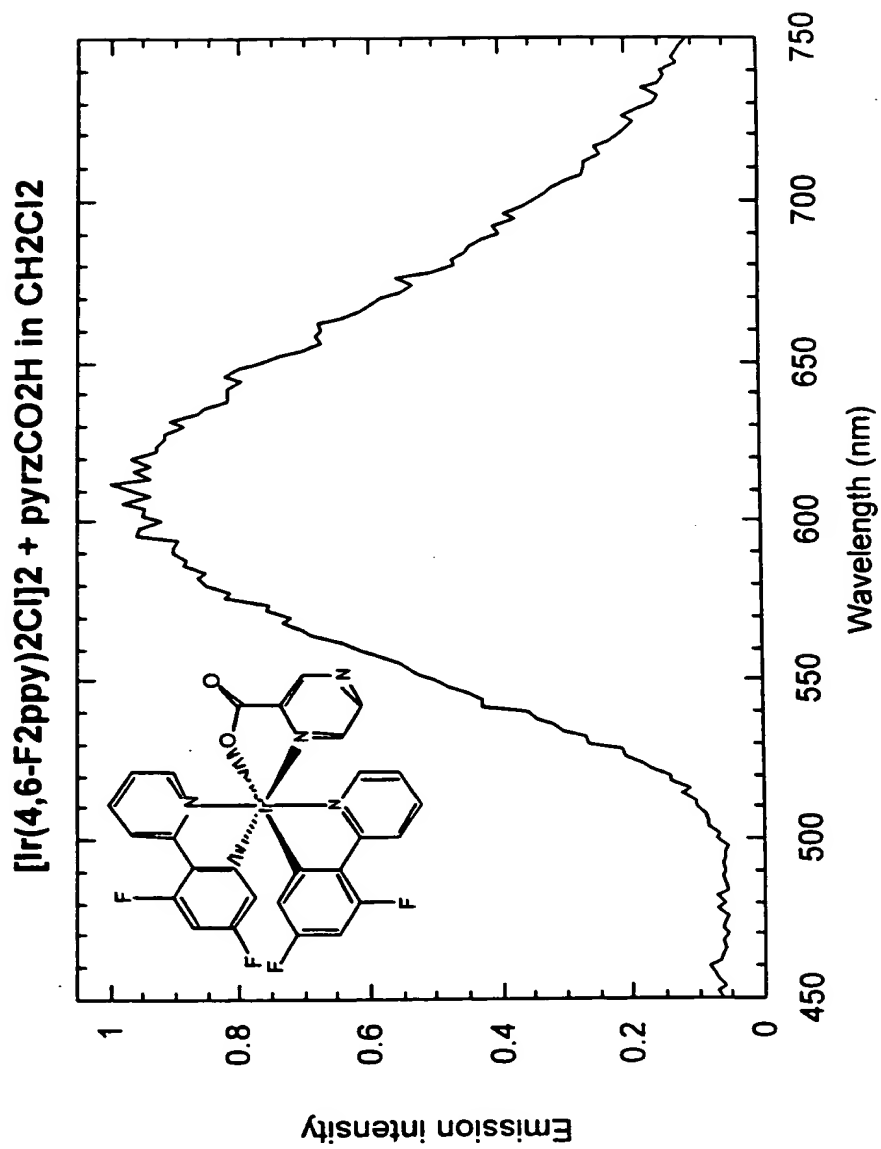


Figure 7r

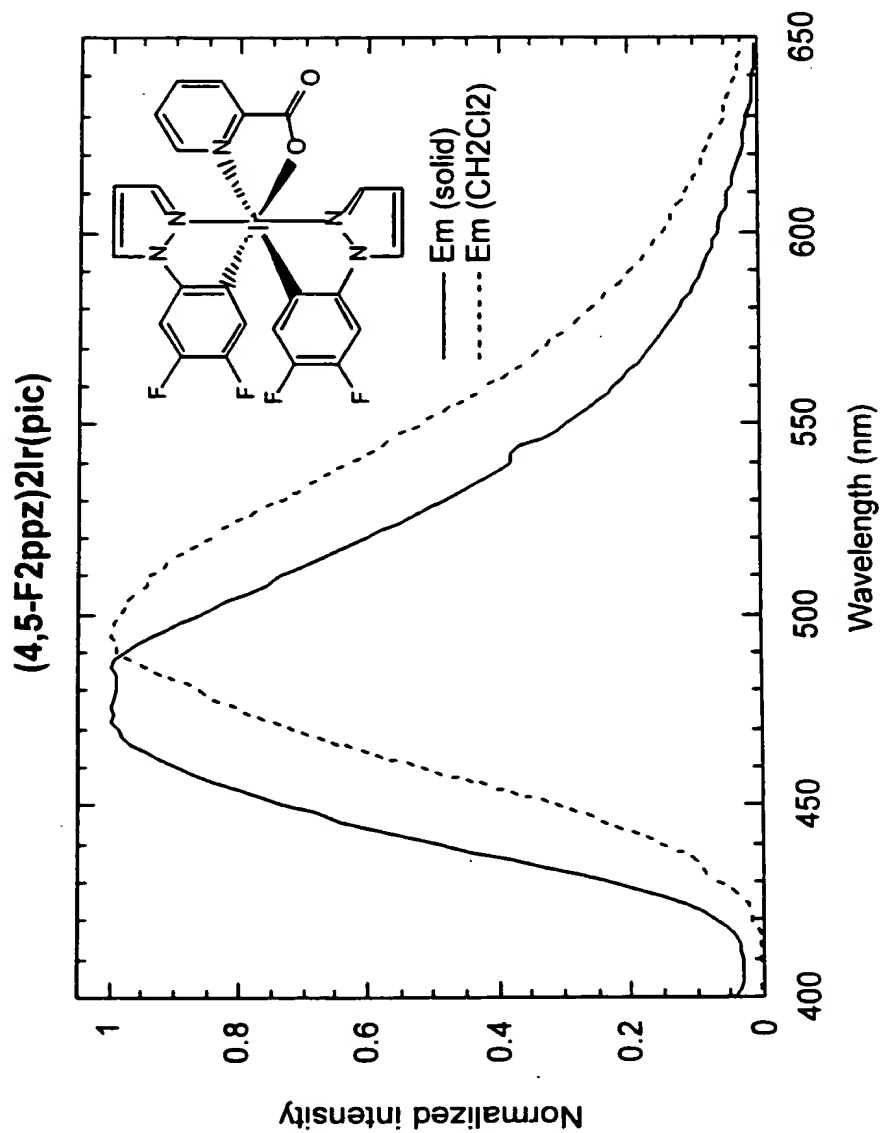
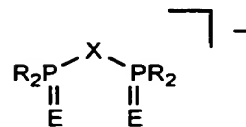
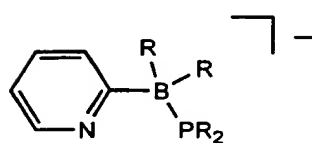
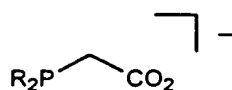
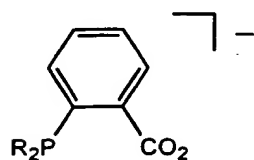
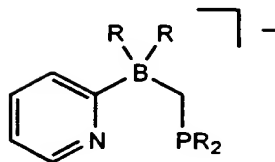
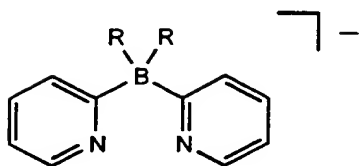
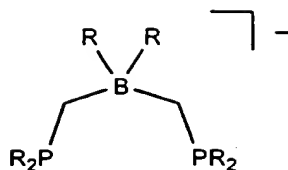
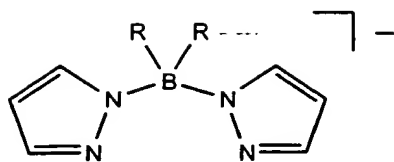


Figure 8a



X=CH, N  
E=O, S, Se, Te

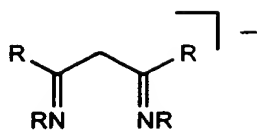


Figure 2b

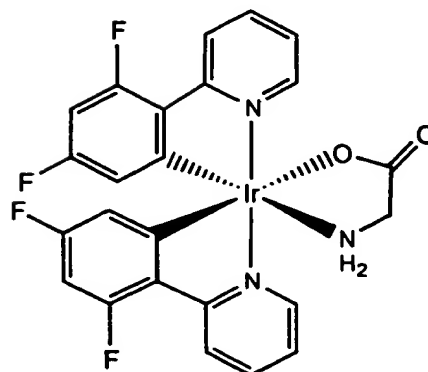
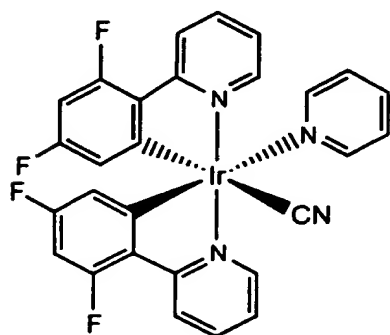
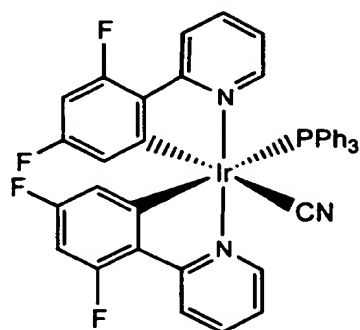
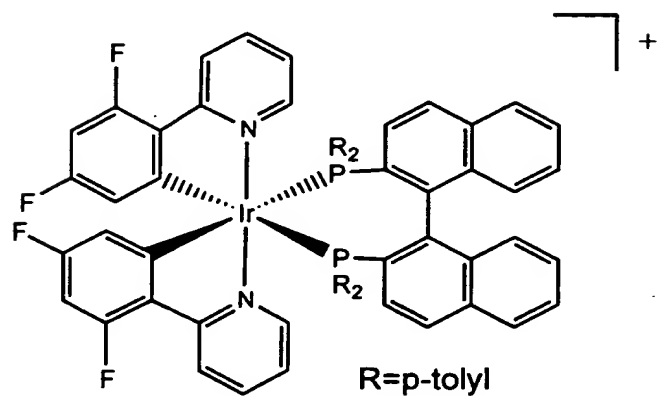
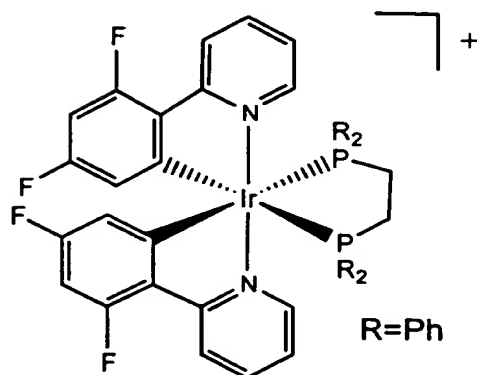
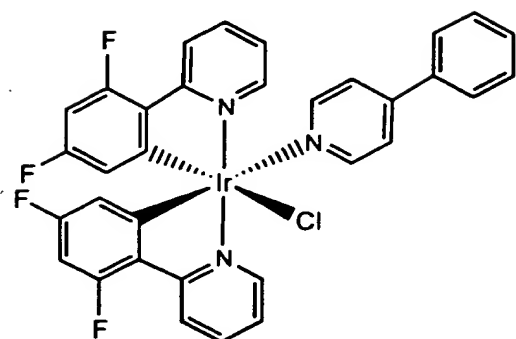
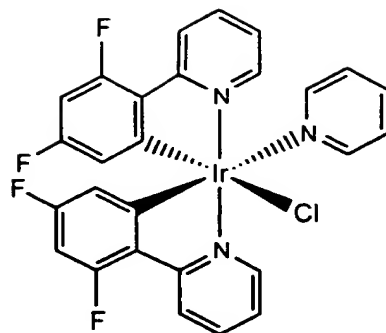
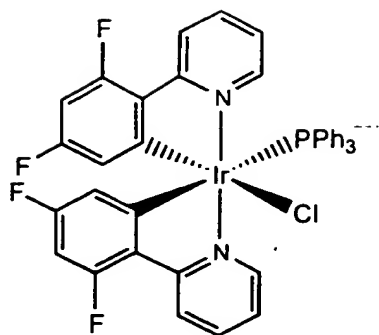




Figure 8c

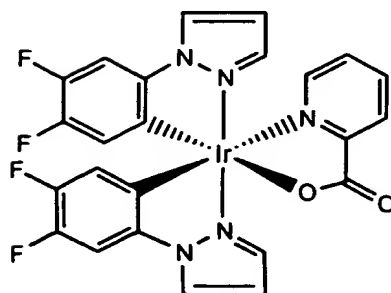
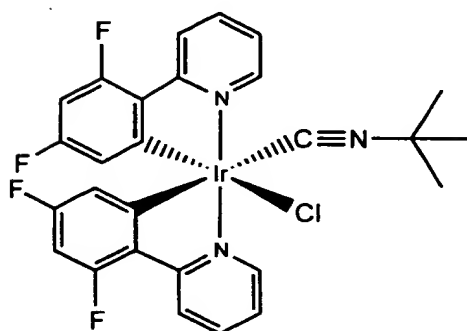
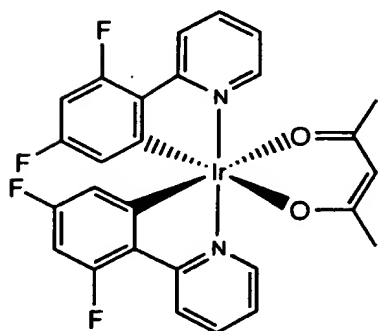
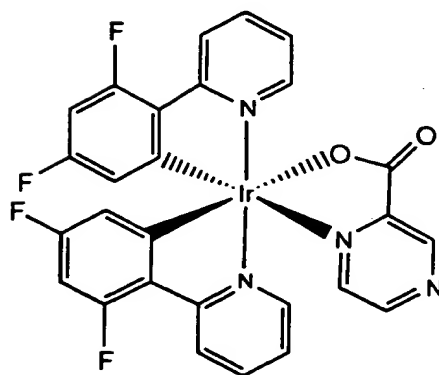
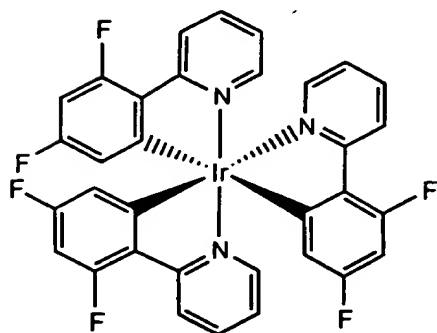
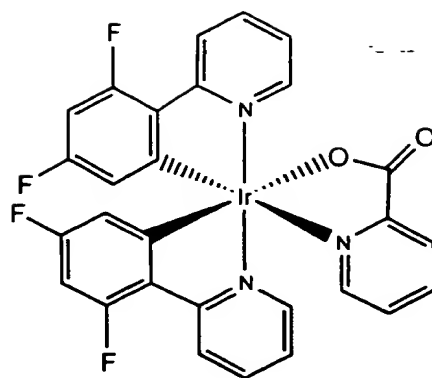
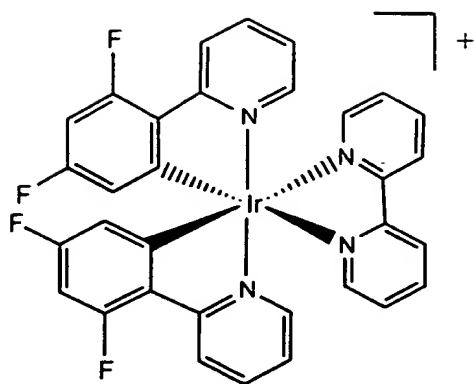
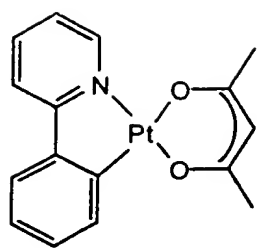


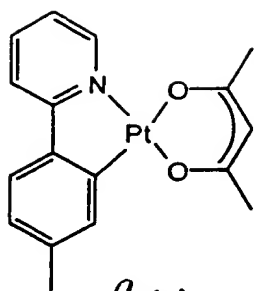


Figure 9(a) - 9(g)



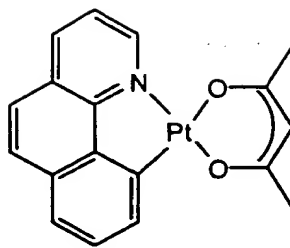
9(a)

(ppy)Pt(acac)



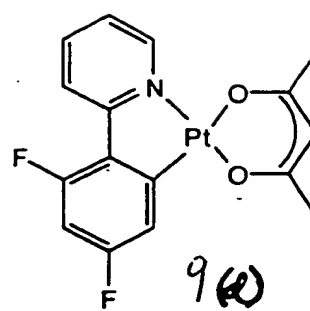
9(b)

(tpy)Pt(acac)



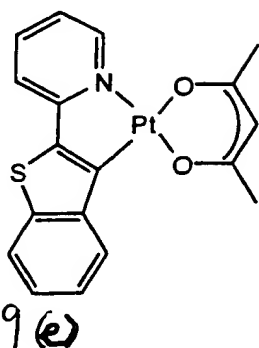
9(c)

(bzq)Pt(acac)



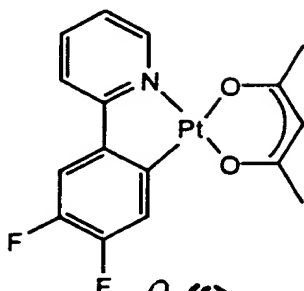
9(d)

(4,6-F<sub>2</sub>ppy)Pt(acac)



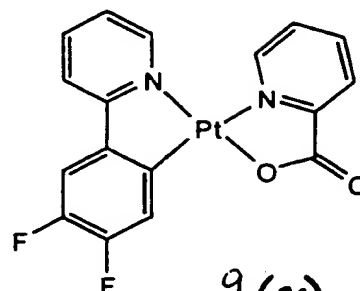
9(e)

(btp)Pt(acac)



9(f)

(4,5-F<sub>2</sub>ppy)Pt(acac)



9(g)

(4,5-F<sub>2</sub>ppy)Pt(pico)

Figures 9(a) - 9(g)

Figure 10: This Emission spectrum shows the spectra of both  $\text{Pt(ppy)}_2$  and  $\text{Pt(ppy)}_2\text{Br}_2$ . The former gives green emission, partly from MLCT transitions, and the latter gives blue emission, predominantly from a triplet  $\pi-\pi^*$  transition. The structure observed for the  $\text{Pt(ppy)}_2\text{Br}_2$  spectrum is consistent with ligand centered emission. The luminescent lifetimes for the two complexes are 4 and 150  $\mu\text{sec}$ .

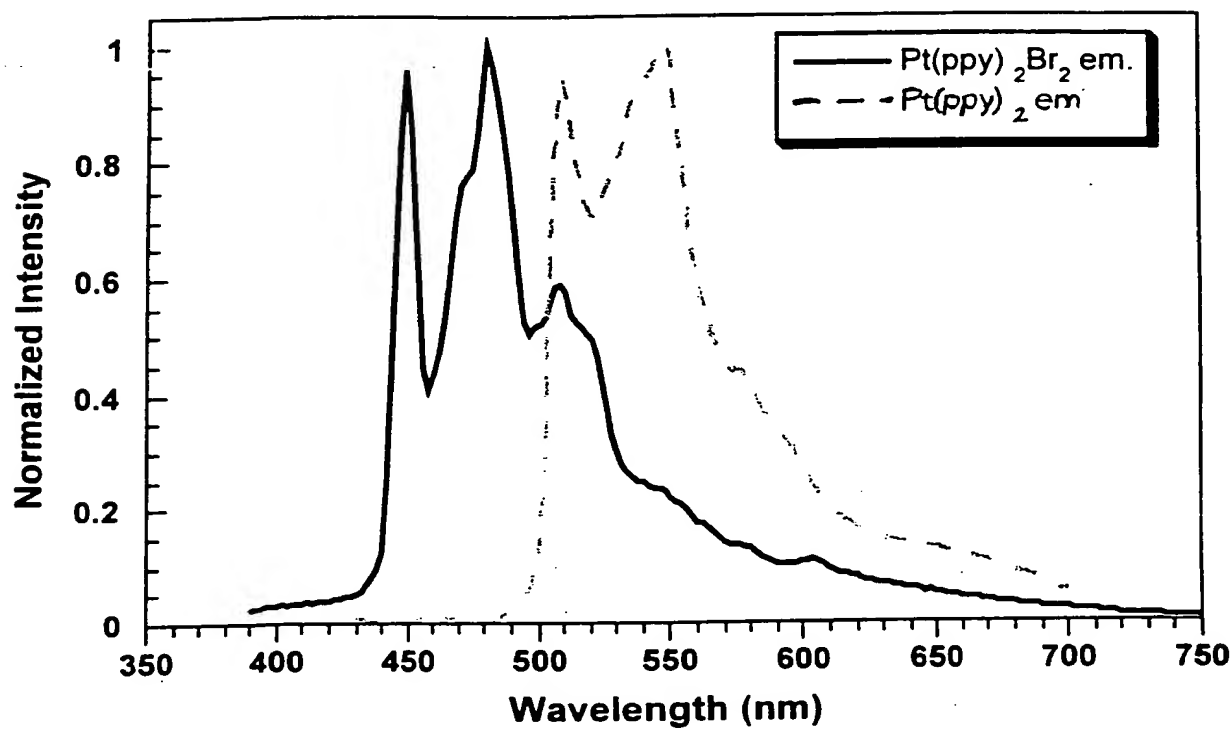


Figure 10

Figure 11: This plot shows the emission spectra of (ppy) $\text{AuCl}_2$  and (ppy) $\text{Au}^{+}$  2,2'-biphenylene). Both emit from ligand triplet  $\pi-\pi^*$  transitions.

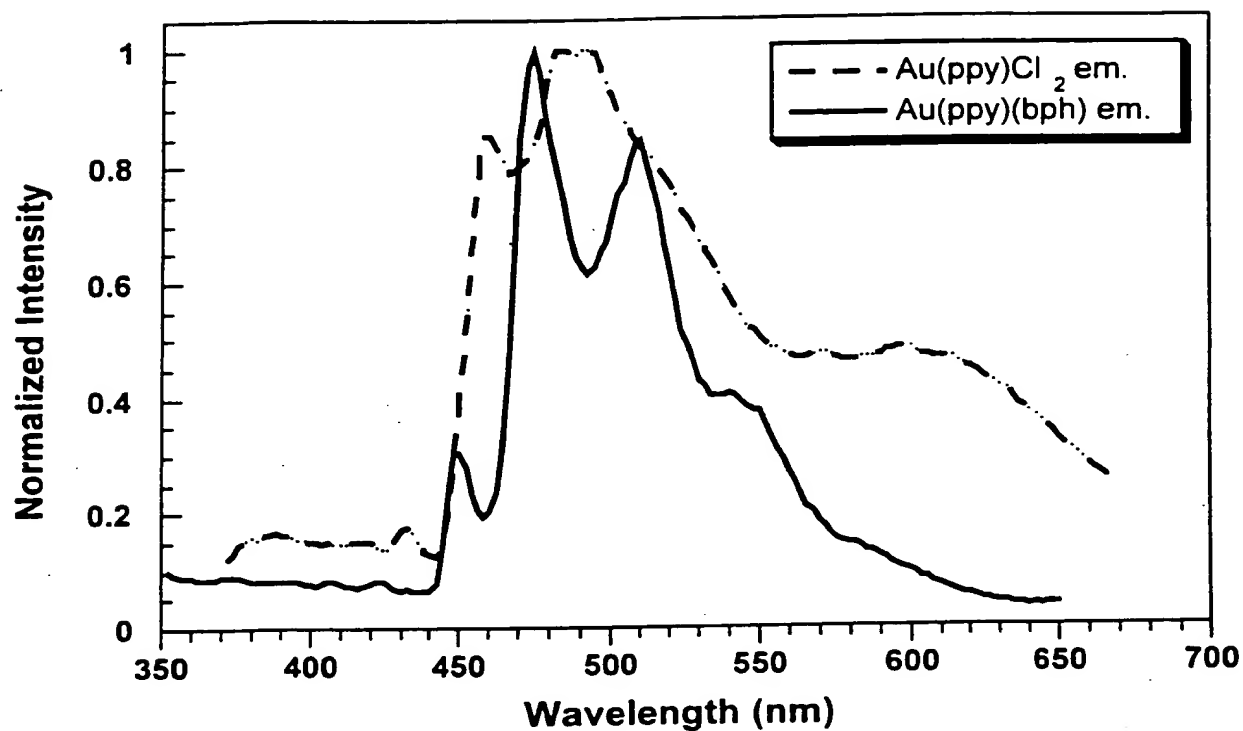


Figure 11

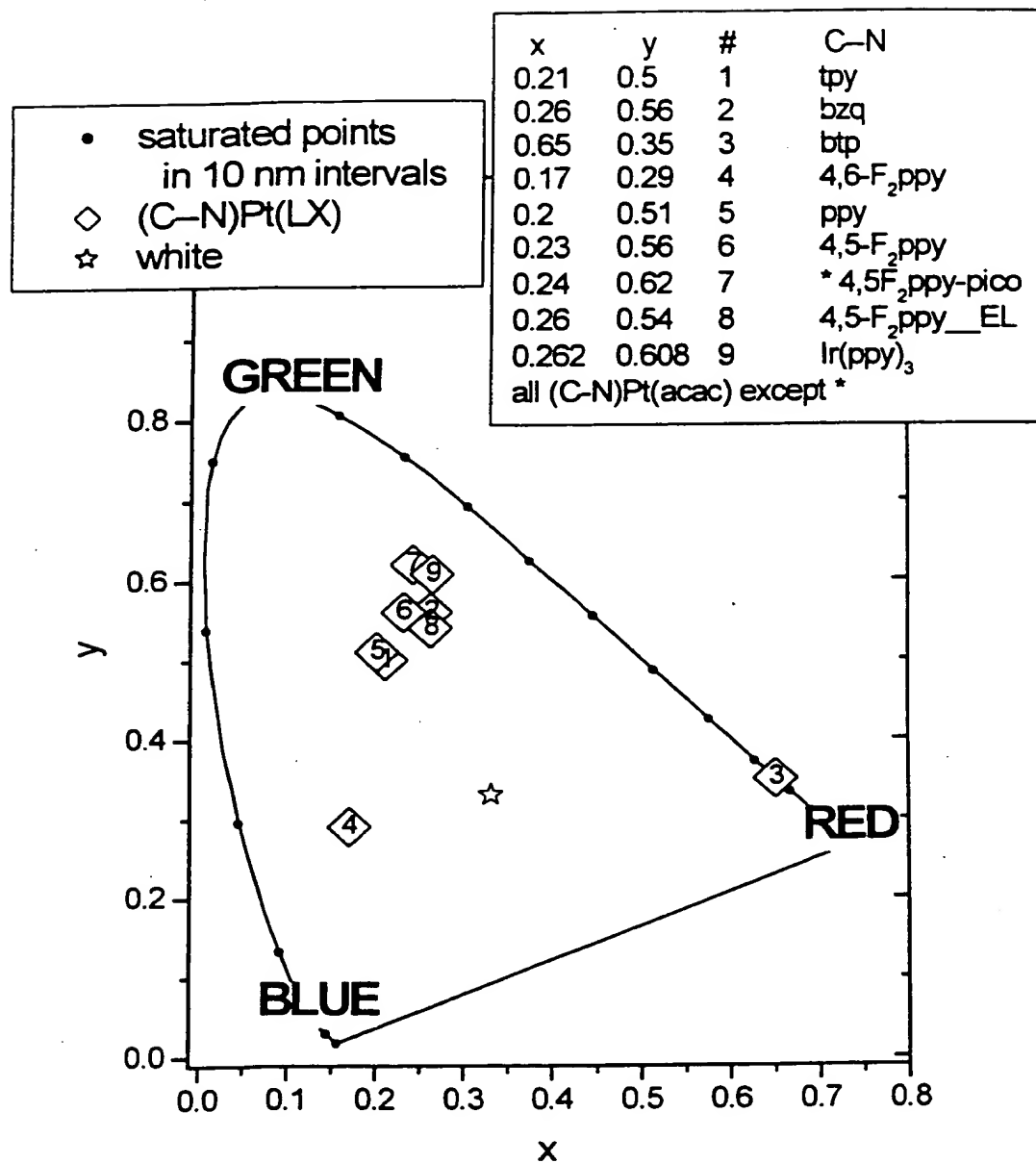


Figure 12

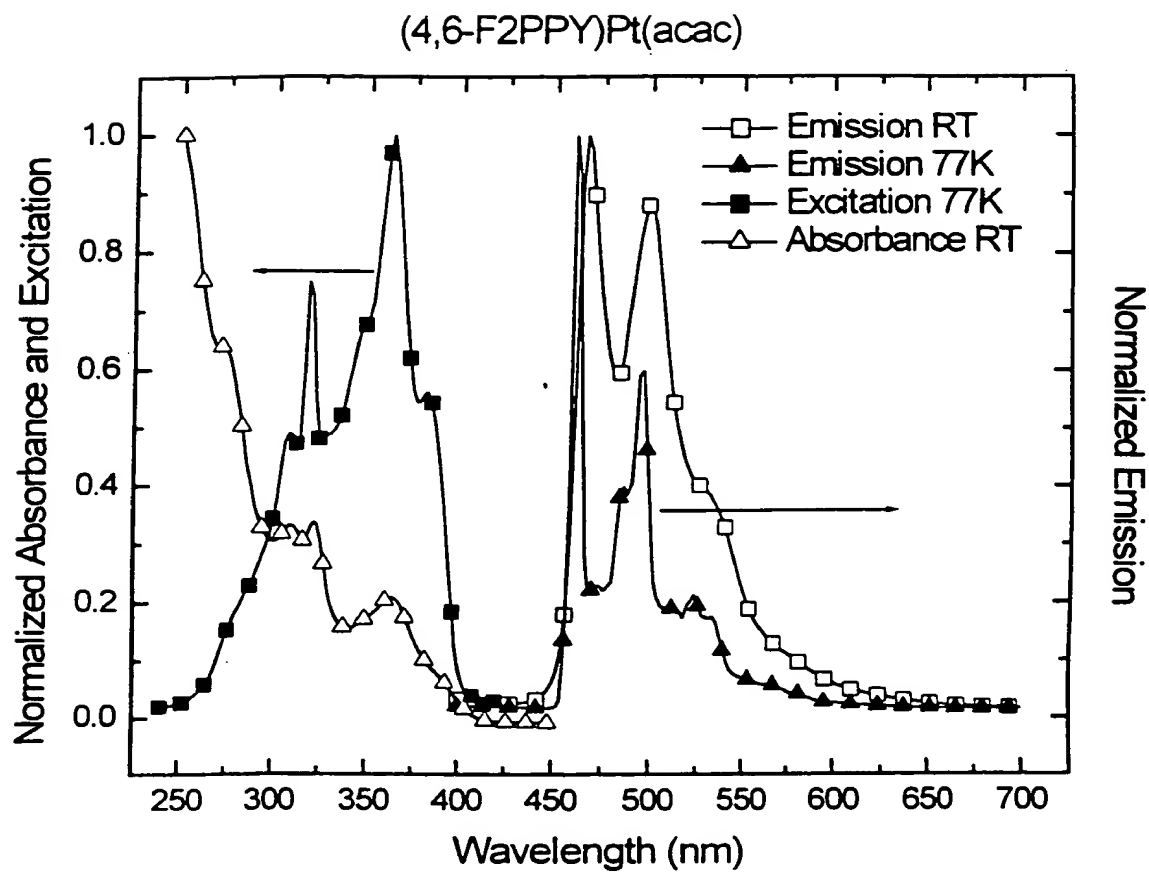


Figure 13

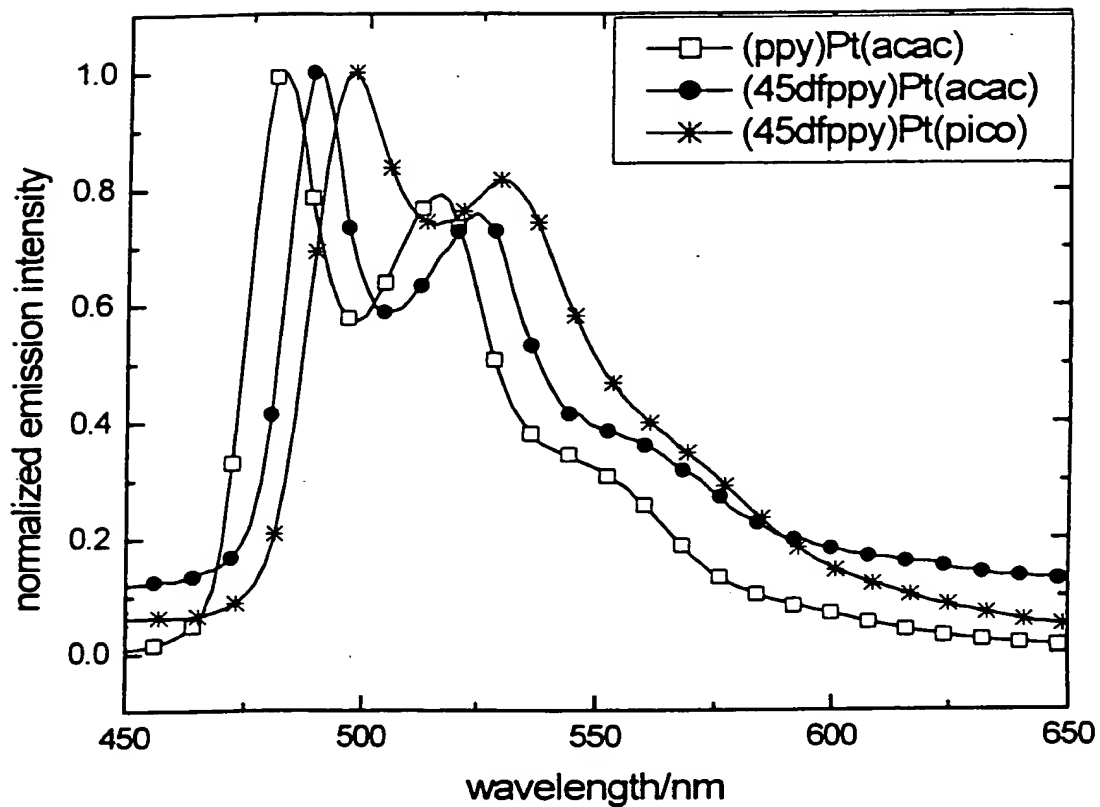


Figure 14



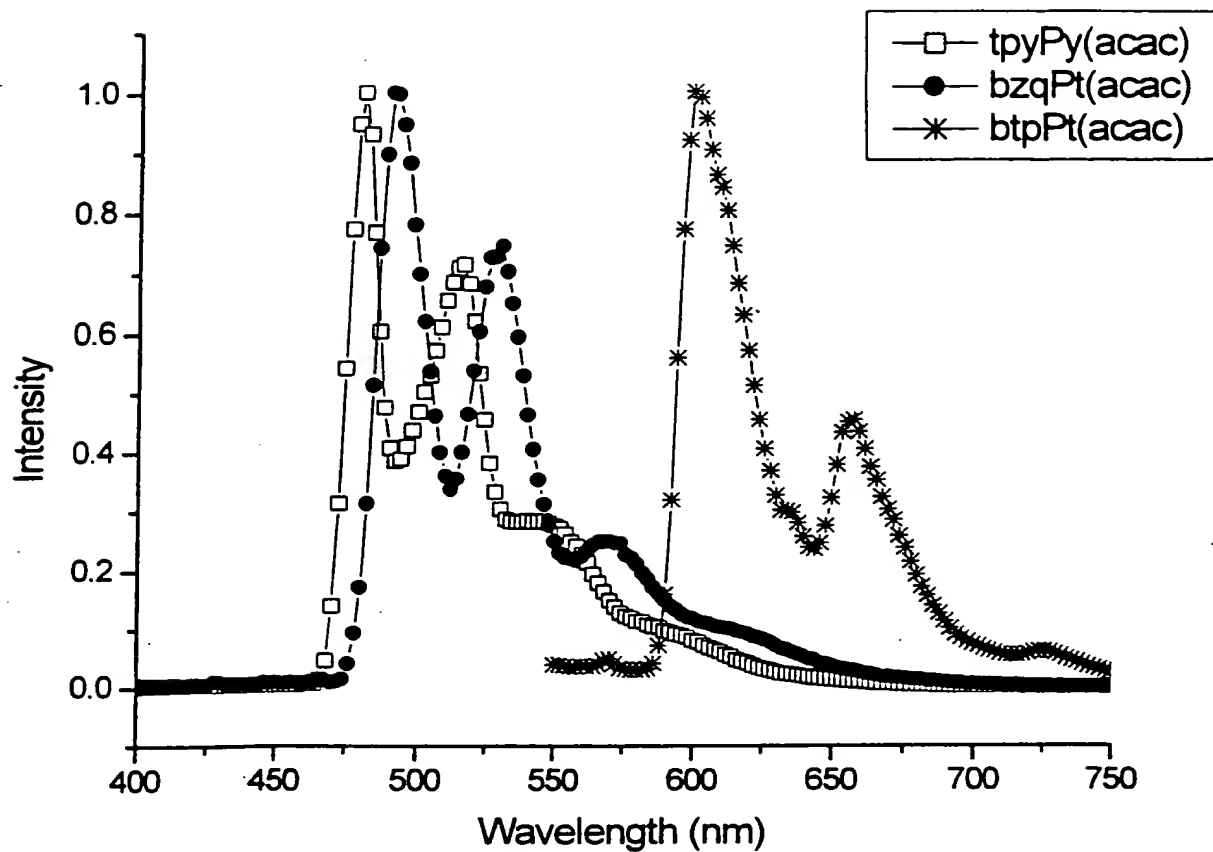


Figure 15

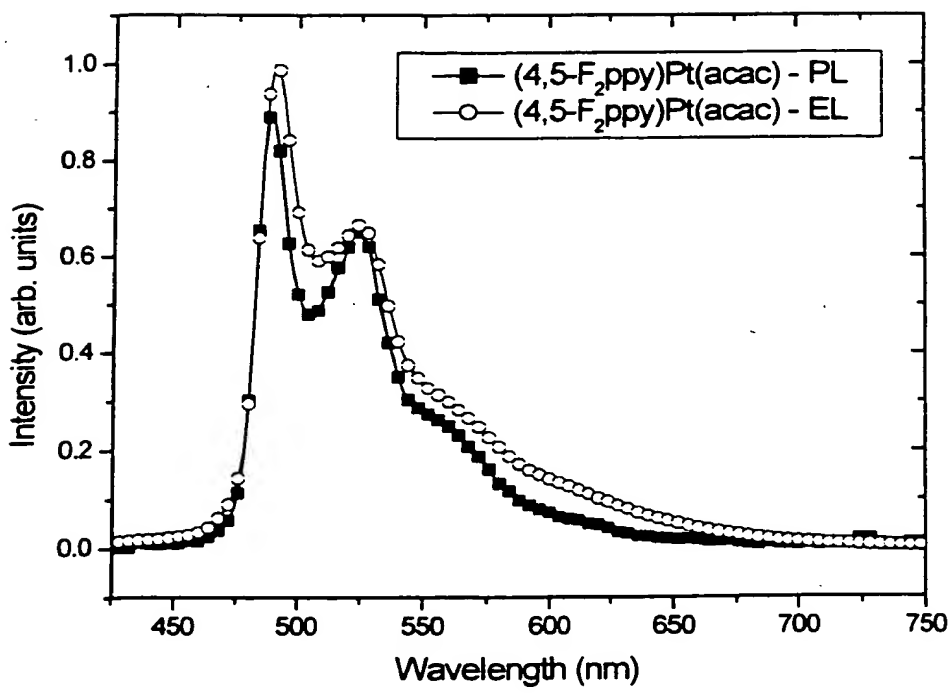
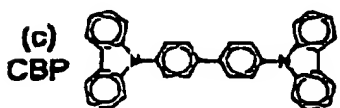
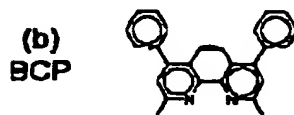
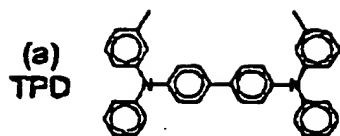


Figure 16

FIG. 17

PRB 62

HOSTS



GUESTS

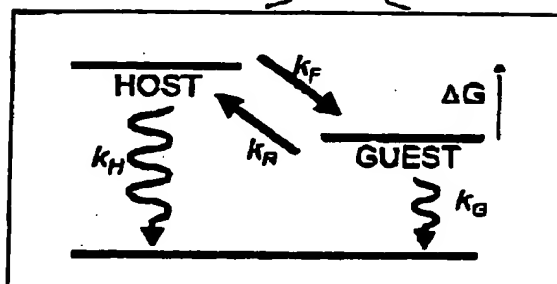
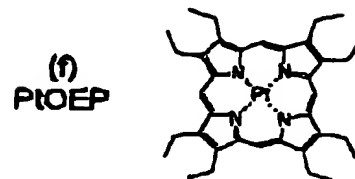
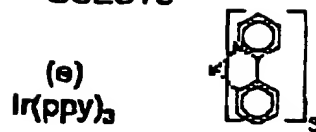
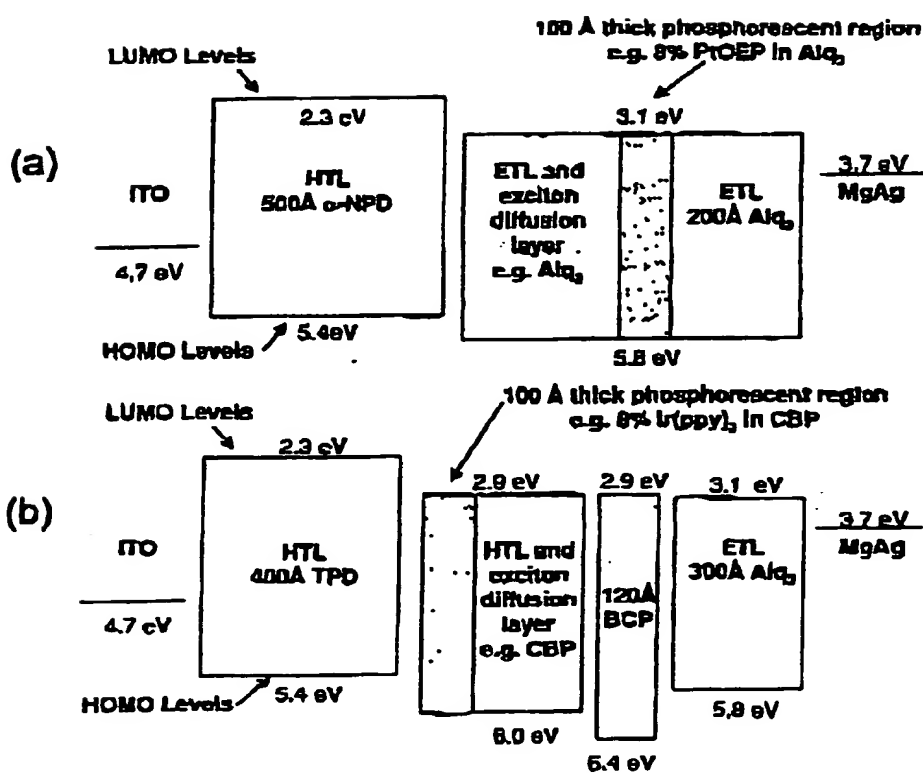


FIG. 18

PRB 62



TOP SECRET

FIG. 19

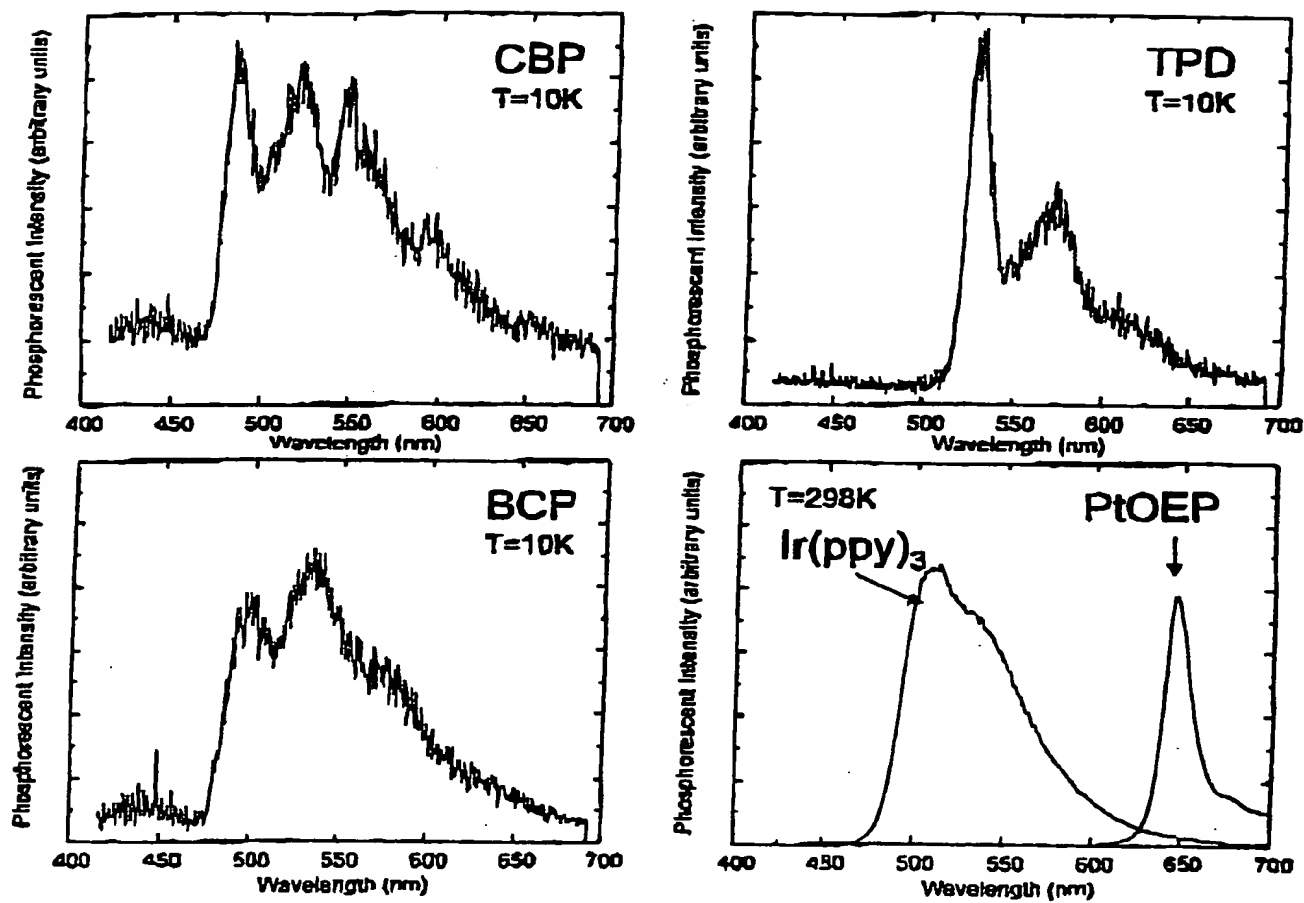


FIG. 20

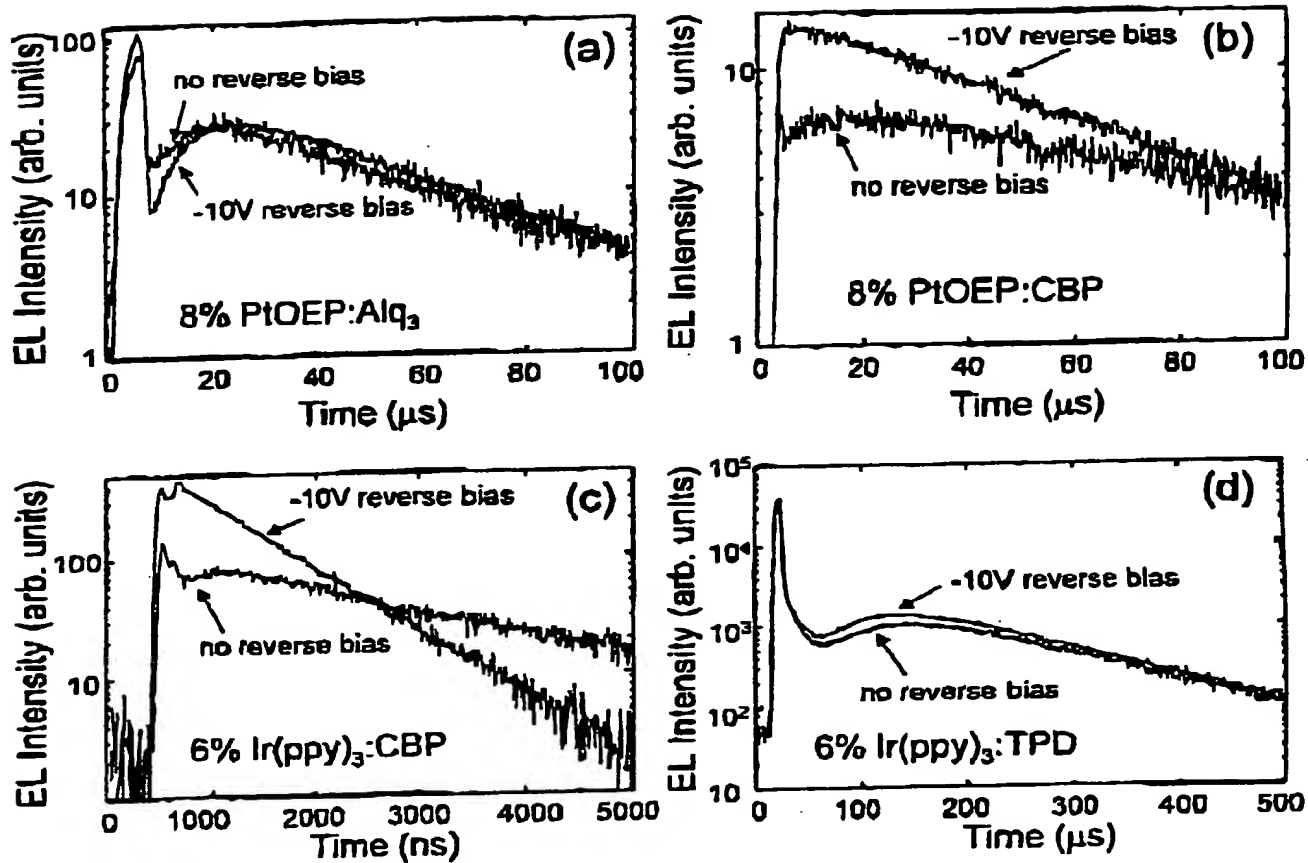
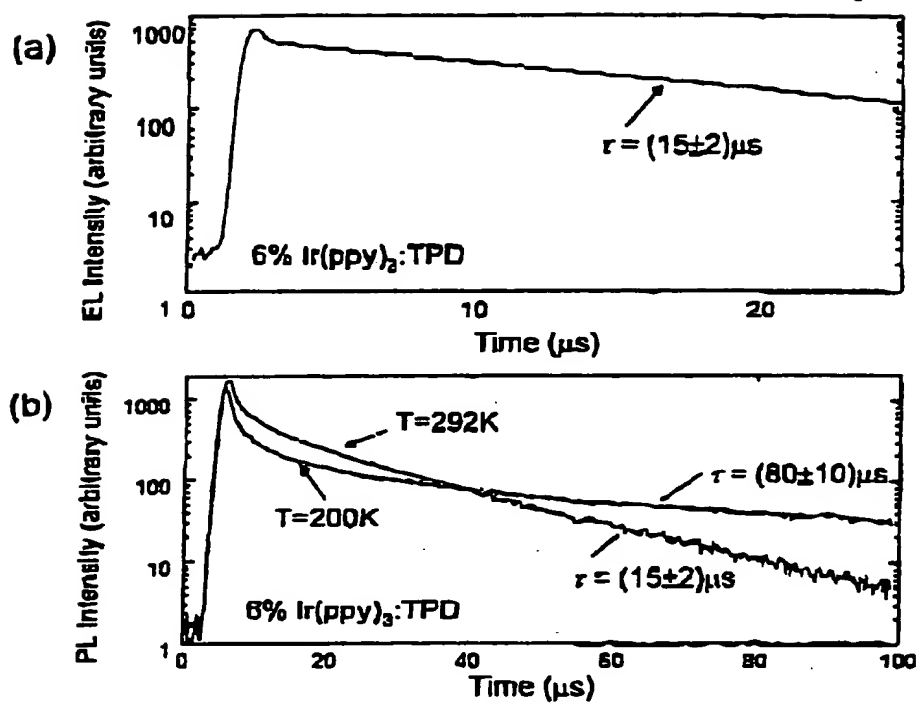


FIG. 21



TEST OF SSB260

FIG. 22

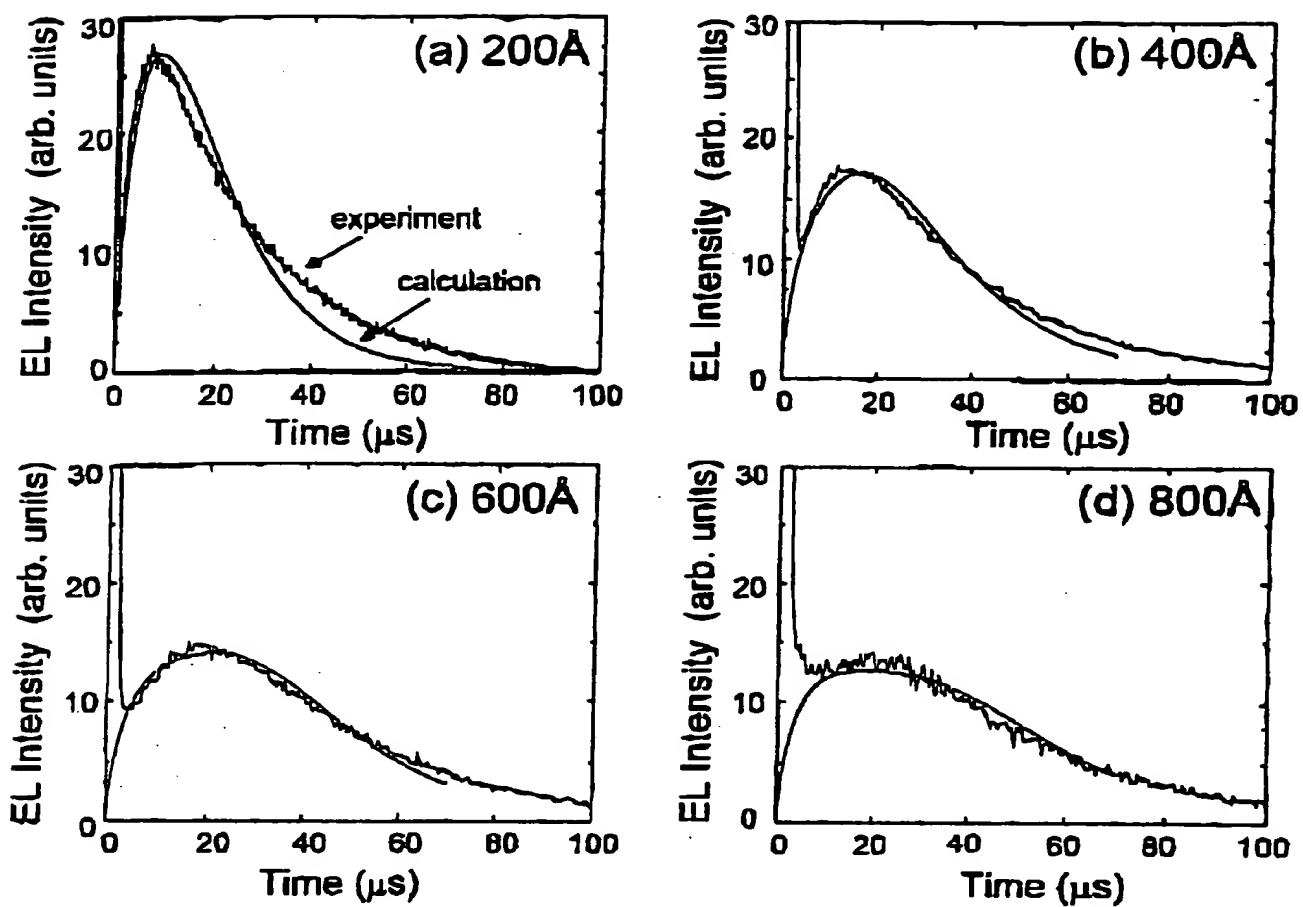




Fig. 23

